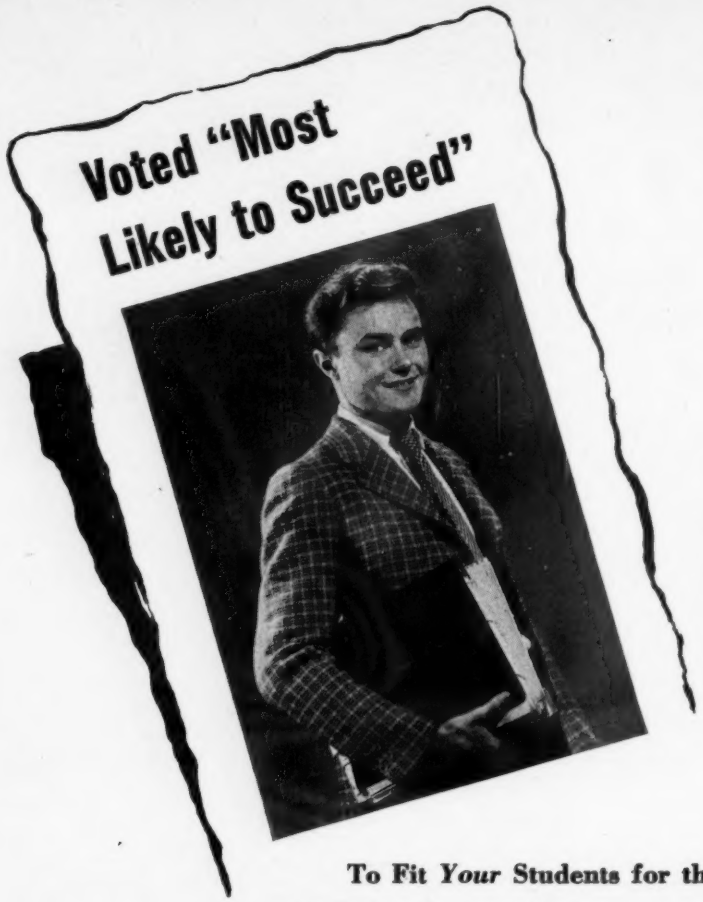
VOCATIONAL



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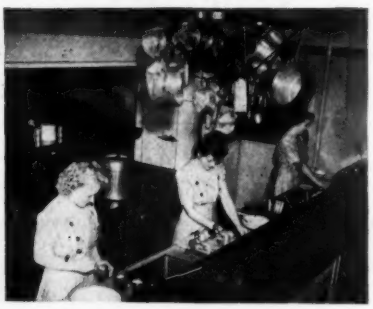
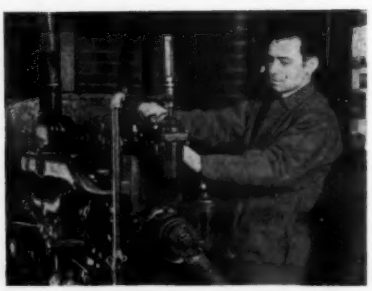




we looked at VOCATIONAL

EXPANDING Wichita has determined to broaden her vocational program. But how? What courses shall be introduced? What shall be the shop layout policies? What are desirable architectural features?

Before answering these questions Wichita decided to study the experience of other communities. Late in November J. C. Woodin, director of vocational education, P. W. Harnly, principal, East High School, representing the Wichita Board of Education, and the author, representing the State of Kansas, launched on a circle tour that took them through more than two score vocational schools in ten cities.

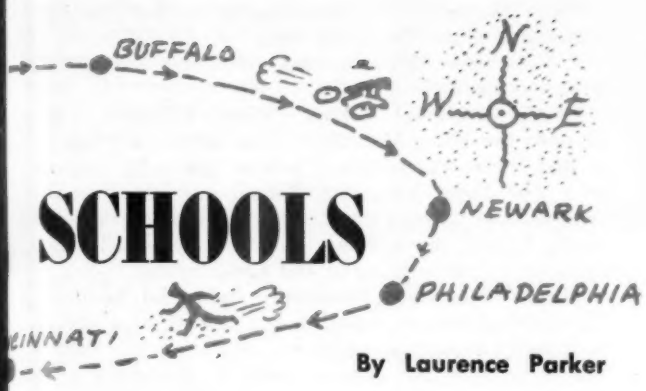
A Glimpse of Vocational Schools

We found shops in some schools installed in rooms. At times, the rooms were too crowded; in a few instances the shop equipment did not utilize all the space. In other schools large areas were used for trade instruction with easily moved partitions separating the various shops. In another location partitions were made up largely of glass separated shops. We saw open-area shops that apparently satisfied all concerned.

At the South Side Vocational School in Chicago we found a building arranged very much as modern hospitals are laid out, with shop rooms 40 by 60 feet with outside light on three sides. We saw extremes of shop design as well as various modifications.

In a few shops, we saw instructional material completely organized and in use. In other shops all planning for instruction must have been in the instructors' heads for there was little evidence of planning. Where instructional material was completely organized there was sparkle to the shop work. In two instances we found definite setups to assist the instructor in getting teaching plans out of his head and on to paper. The Chicago department for this purpose operated by C. W. Ewing, under Philip L. McNamee's direction, is exceptionally well organized both technically and mechanically.

TOP TO BOTTOM: "Job Panels" save time and equipment at Dunwoody Institute in Minneapolis; Boys' and Miller Vocational Schools, Minneapolis; barbering and beauty culture are taught at Boys' and Miller Vocational Schools, Minneapolis; waitress trainees get practical experience at Girls' Vocational Schools, St. Paul, Minn.; care and maintenance of Diesel engines in Burgard Vocational High Schools, Buffalo, N.Y.



SCHOOLS

By Laurence Parker

We found vocational education geared to present-day community life. In one school daily movies follow lunch. In another school 13th and 14th year girl students have a separate lunch room where they have the privilege of smoking. In still another boys and girls dance after lunch. At Dunwoody a snowplow clears space for student and faculty cars; a wrecker car pushes those hard to start in cold spells.

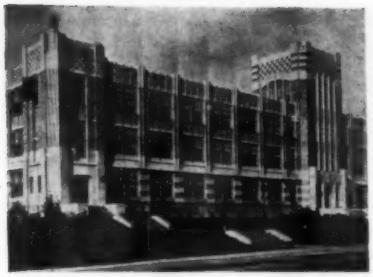
When our itinerary had been planned, the state supervisor wrote to supervisors in the states and schools we wished to visit. Replies often suggested improvements in our plan. We then wrote letters to local directors or principals.

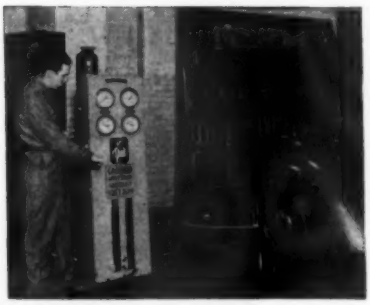
Minneapolis

Because of an unfortunate confusion regarding Thanksgiving, we arrived in Minneapolis after the boys' and the girls' vocational day classes had closed for vacation. Therefore, we saw only the evening classes and the physical plants. C. K. Lush, city director of Vocational and Industrial Education, appeared within 30 minutes of our arrival to show us these fine interconnected schools:

Miller Vocational High School. We had visited the girls' vocational program in its early stages under Elizabeth Fish and again after Miller Vocational School had been built, shortly before her death. This beautiful four-story building fronts on three streets, in a choice location. On this, our third visit, Agnes R. Crousne is principal. It is still a school of practical well-planned vocational training for girls. It still maintains its special features we remembered so well, notably:

1. Retail Selling with its store which sells products of this school; the rather complete gift shop, with well-trimmed show window which, of course, was open to the public.
2. Beauty Culture with a large, well appointed shop.
3. Office Practice amply equipped with modern business machines.





TOP TO BOTTOM: The Burgard Vocational High Schools at Buffalo, New York; auto mechanics shop at the Essex County Vocational and Technical High School for Young Men in Newark, New Jersey; the Essex County Vocational and Technical High School; equipment used in local industries is selected for the Essex County Vocational Schools; the Lucy Flower Technical High School for Girls in Chicago, Illinois.

4. Commercial Art turning out products of great variety, including Christmas cards at the moment, which find ready sale in the store.

5. Tea room, power sewing, millinery, commercial dressmaking, etc.

Boys' Vocational School. When Elizabeth Fish planned the Miller Vocational High School, she saw to it that there was sufficient ground space for expansion. The Boys' Vocational School now is interconnected on all floors with Miller. John Rohbom is principal. Among the offerings for boys are: barbering, upholstery, radio, printing and bookbinding.

The William Hood Dunwoody Industrial Institute. Dunwoody Institute takes on the quality of a shrine to those of us long in vocational education. On Friday afternoon, with the school closed for the week end, Dr. Prosser, R. T. Craigo and Mr. Sahlin were waiting to receive us. Dr. Prosser took us out into those enormous, factory-type shops. We suggest that you read the catalog of Dunwoody Institute for unique and worthwhile courses. However, we want to mention especially try-out shops, air conditioning, painting and decorating, electrical courses and baking. Although it was vacation, two workers from bakeries were there practicing cake decoration. This, to us, was the acid test of practical education to fill real needs.

Dunwoody instruction is based solidly on organized job and instruction sheets. There is every evidence that they are correctly used and that they work.

In all electrical courses, including radio, small equipment is mounted on what Dr. Prosser calls "job panels." This practice protects the equipment while the student is starting his training; and it saves his time while connecting up equipment according to carefully prepared job sheets. Throughout the shops hang informational "job panels." Mounted on them are the manufacturers' charts and instructional aids which get lost so easily or suffer damage by much handling. These boards can also be taken into related classes.

St. Paul

B. H. Brynildsen, director of vocational education in St. Paul, acted as our host; C. W. Wick, State Supervisor for Minnesota, accompanied us and helped answer our questions.

Boys' Vocational School. We visited this school and met the principal, Allyn C. Taylor, and some members of his staff. This school is housed in a factory-type building. The machine shops and watch, clock, and instrument-repair shop especially interested us.

Girls' Vocational School. This school is housed on an upper floor of a modern high school not far from the Boys' Vocational School. Agnes Larson is principal. Equipment for waitress training is exceptionally well planned to give practical experience through operation of a high school tea room. Power sewing equipment, well arranged, is well employed with practical work.

War Production Training. Located in leased space

TOP TO BOTTOM: Nurse aides trained in the day nursery at the Edward Bok Vocational School, Philadelphia, Pa., are in demand; the Edward Bok Vocational School; the Muncie (Ind.) Trade School; students learn meat cutting at the Murrell Dobbins Vocational School, Philadelphia, Pa.

in a modern loft building, the floor is divided up into shop areas by easily moved waist-high partitions. A. A. Kvorning, director, moves out equipment no longer needed for training and starts new lines of work. The excellent machine shop is losing floor space; aircraft maintenance is on the way in. The radio shop is worthy of special mention.

Chicago

Cordial Philip L. McNamee, assistant superintendent of schools in charge of vocational education, spent much time out of a busy day giving us an overview of his program and arranging for our visits.

Lucy Flower Technical High School for Girls. Sophie Thielgaard, principal, answered our many questions. Margaret Gilmer, reporter for the school paper, came into the office according to appointment to get news. She interviewed us and answered our questions as to why she attended Lucy Flower. This school has gone a long way since Dora Wells founded it on the South Side many years ago. Girls come to it from all over the city, riding long distances past other high schools. It is a sort of "finishing school" on the high school level. Girls told us they came because mothers, sisters, cousins or friends had done so; others came because they had visited and liked the school. They denied missing associations with boys in the usual co-ed high schools. Lane Tech boys are invited to parties.

The vocational courses of former days have been transferred to Washburne Trade School, but it would not take much of a change to make much that we saw qualify as vocational. Later on, we found the reporter, Miss Gilmer, using part of her lunch hour to cut out a black velvet collar. This school continues the custom of having in each class a hostess. When visitors enter the teacher continues her activities, the hostess comes forward, greets them, explains the grade and nature of the activity and invites them to inspect the work being done. It is good for her and takes away that feeling we all have of interrupting a class at work.

Tilden Technical High School. Principal Frederick E. Price showed us around during a very hurried visit. We were especially interested in the photographic laboratory. A vocational aircraft maintenance course has been recently added. Tilden is on the list of schools which are to be modernized as soon as the war is over. Through the years practical men have been selected for teachers. While they taught they received courses in education.

South Side Vocational School. J. J. Duggan, supervisor of machine shops, Chicago High Schools, took us to the building which was built to be the South Side Vocational School. After only a few months of service it was turned over to the Navy for naval air technical training courses. Lt. Paul O'Rourke, San Francisco vocational director, showed us through. Designed like a modern hospital the building admits abundant light

(Continued on page 38)

TOP TO BOTTOM: High School of Graphic Arts and Printing, Cincinnati, Ohio; class in commercial art, Hadley Technical High School, St. Louis, Mo.; Hadley Technical High School; sewing machine class at East Vocational High School, Cincinnati, Ohio; Camden County (N. J.) Vocational School.

If society puts up bars to youth under 18 working, will schools give them credits that are cashable?

Who will do this job?

In New Jersey vocational education planners go down to the grass roots of work and living. How deeply they probe appeared in AVA President John A. McCarthy's address at Philadelphia. What kind of workers does industry want? What is the spot youth is on? Who can help? The high school? Vocational education? A new approach to the secondary school program? Read this thoughtful analysis by New Jersey's Assistant Commissioner of Education in charge of vocational education.

I WISH I could take you into some of the business organizations where executives, supervisors, and foremen assemble to discuss problems which are found in occupational life. The most difficult situations are those which originate in the home or the community. A drop in industrial production has been traced to workers skipping their breakfasts. The death of several persons in an industrial accident was the result of someone playing too hard the night before. Industry pays the bill for what happens outside the factory gate.

The leaders of industry and business are learning the values of home and community stability; educators in the community cannot shirk the responsibility to adjust educational programs to produce an effective relationship between the home and the job.

School systems of America have lagged behind the developments of the second (mass production) and third (social pressures) stages of the industrial revolution, although the schools have been affected to a greater extent than have other units of society. I was impressed by this lag when I attended a conference in Philadelphia a little more than a year ago where consideration was being given to a plea from a group of employers who wished to have the child labor standards lowered to meet wartime needs. The educators exhibited less understanding than did the representatives from other groups. They gave evidence of a lack of knowledge of child labor legislation and the effects of such legislation. This may be due to the subtle manner in which social progress has made rapid strides.

Work Entrance Postponed

Social progress is creating many of the problems of the high school. Its causes have not been identified by most school administrators. While some of the labor regulations have been relaxed during the war there are indications that such regulations will be more rigidly applied and even expanded when the labor market is more free. The original intent of the child labor legislation was to keep youth in school until 16 years of age. But other groups have taken steps to build upon the Wage and Hour Act and to increase the entrance age of employment to 18 years and beyond. This has developed into an economic movement to control employment in certain occupations and create new problems for youth who complete their formal schooling before they can be employed legally.

The extent to which youth under 18 years of age can be restrained from entering occupational life without some provision for normal social adjustment will be tested during the reconstruction period. The CCC and the NYA in their early stages were intended to solve this problem. These organizations might have been successful if they had adhered to the objectives and legislation under which they were created. We do not need a revival of the NYA and CCC. Schools with adequate financial support can do the job. They are the most effective unit in the community to do so—far more effective and less costly than any federal agency.

Social legislation which has restricted youth under 16 from entering most occupational fields has caused them to remain in school in an educational program that never was intended for them. This has produced problems in the school and the community, and these will be more severe as employment restrictions are tightened. The problems in the school result from failure of youth to adjust to high school programs which were primarily intended for those who had an interest and ability for academic subjects.

A few months ago, the problems created by youth who must remain in school were considered by the educators in one of the large cities. This group went on record favoring the lowering of the compulsory attendance age. This would eliminate the problem for the schools but would create additional juvenile delinquency problems in the community. A sound solution will involve reorganization of the secondary schools to fit the interest and ability of those who should have equal opportunities with those who wish to go on to college. Revision of secondary school offerings will not entirely eliminate juvenile delinquency,

By John A. McCarthy
Assistant Commissioner of Education, New Jersey

but it will go a long way to help youth make a more healthy type of adjustment to home and community living—the areas in which most problems have their origin.

Not the Entire Answer

You will note I refer again to the importance of the schools in preparing for more effective home and community living. This new point does not coincide with the views of some educators who look to the vocational schools for a solution to the problems of the youth who must remain in school longer than youth itself wants to.

Vocational education is not the entire solution to the problems of the secondary school. It is not the entire solution to juvenile delinquency. Much vocational education of the pre-employment trade and industrial type is now on the post-high school level. It has been forced upon that level by the changes in entrance ages of employment. Much more of the trade and industrial vocational programs will be on the post-high school level in the reconstruction era. Pre-employment programs, to be effective, must be organized to prepare persons to be employable at the completion of the training program. There must not be a period of idleness between the completion of the training and the actual application of the acquired skills. Knowledge, trade skills, and judgments disintegrate rapidly unless they are exercised.

There are additional reasons why vocational education will not solve all of the problems which appear in the high schools because of youth having to remain in school. The schools are as much affected by mass production developments as they are by the development of social legislation. Mass production practices have eliminated many trades on the skilled level. This means there is a large area of occupational life for which *no* pre-employment training can be given in the schools. Take for example operators in oil and chemical plants and in the rubber industries. The jobs are highly specialized; training is short, intensive. The training situations cannot be established in a school environment. Training, therefore, will be given where it can be given best—on the job by those who are skilled in these operations and by those who have been trained as teachers.

Educators do not realize the extent of teaching in occupational life. This teaching job is of as great importance as that in the schools. It has been necessary for industry to maintain an intensified teacher training program for on-the-job training. Some of the teaching methods are more practical than those used in training teachers for public schools.

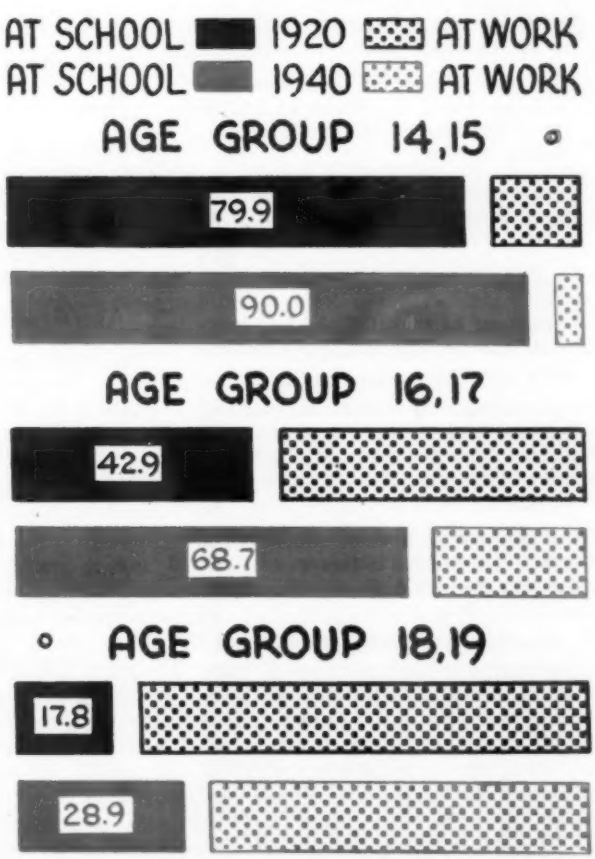
White Collars in Factories

There are other occupations—machine tool operators, power sewing-machine operators, the building trades, etc.—which will not be available for those under 18. Here short intensified courses will be operated in the schools and also on the post-high school basis to meet employment standards. Training for war production workers has shown the way they must meet occupational standards. Job simplification is the answer to low cost production.

Job simplification, assembly line practices, and mass production will result in products which will make this a better world in which to live. Many boys and girls who complete recognized high school courses will find jobs of the simplified type; jobs which will provide good incomes. They will work in pleasant surroundings; they will be "white collar" workers in the factories. At one time, office workers only were in the "white collar" class, but times have changed. Their rights will be protected. But the jobs will not challenge the interest or mental ability of many of these young people. No direct training can be given in the schools for these jobs. This training can be done on the job quickly and effectively.

But the schools must assume the responsibility for developing attitudes toward work and a means for securing "off the job" outlets that will be healthy to the individual and society. Much of this now is being done in the schools through music clubs, dramatic societies, debating clubs, and other extra-curricular activities. These function satisfactorily for group activities when they are properly directed by competent leaders during the school years; but individuals must be trained to get healthy satisfaction "off the job" under their own power or in small groups without the benefit of trained leadership.

(Concluded on page 35)



As fewer youth enter employment the high school load grows heavier.

IN BRIEF

Federal Communications Commission has approved 20 FM channels for exclusive use of schools and colleges.

How women's wartime skills can be used in peacetime industry is the subject of a new Women's Bureau report.

That "portrait" of U. S. in figures —the *Statistical Abstract of the United States* is now ready.

"Except under extraordinary conditions" Veterans Administration will approve contracts *only* with schools and colleges OKed by chief state school officers.

Senator Murray proposes that the Federal postwar budget be written in terms of jobs (60,000,000).

A National Conference on Labor Legislation supported a Senate proposal to raise minimum basic pay to 65 cents per hour.

Higher Education, a semi-monthly from the U. S. Office of Education's Division of Higher Education makes its bow.

Lowering the voting age to 18 is favored by 52 per cent of U. S. high school students, according to an Institute of Student Opinion poll: 43.5 opposed; 4.5 undecided.

Subject of the 1947 AASA yearbook will be *The Postwar Curriculum.*

Four regional conferences planned by the American Association of School Administrators for Birmingham, Chicago, Denver and New York City have been cancelled.

The median level of education of American soldiers in this war is 10th grade as contrasted with 6th grade in World War I.

How many of our 11,000,000 fighting men will want to continue their education? Here's the answer from Brig. Gen. Frank T. Hines: Those who want full-time business or trade school education, 165,000; those who want full-time college education, 660,000; those who want part-time business or trade school education, 1,500,000; those who want part-time college education, 500,000. Total of all types, 2,825,000.

We Are on the Threshold

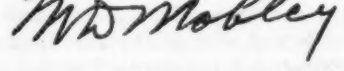
THE three paramount goals of the American people are: (1) Win the war at the earliest possible date; (2) secure a lasting peace; and (3) provide peacetime jobs that will sustain a decent standard of living for all the employable workers of this nation.

The vocational forces throughout America have played and are playing an important role in hastening the day of victory as a result of the outstanding contribution made in training millions of people for war-essential jobs. Leaders in all walks of life are cognizant of the important part played by the vocational forces in the nation's battle for production of essential war goods and materials.

Following cessation of hostilities, the vocational forces will again be faced with gigantic responsibilities. Millions of people will have to be trained or retrained for peacetime occupations. We are at the very threshold of great opportunities for service even though we may be faced with difficult and perplexing situations.

It is the responsibility of all our forces to keep the American people informed of the important part the public vocational schools of the nation can and should play in the nation's reconversion program.

Through the emergency war training program, they have demonstrated their ability to adjust educational programs and thus meet the training needs of workers. Our public vocational schools, if provided with adequate funds, can and will make whatever adjustments are necessary in order to render the greatest service possible in the reconversion period.



President
American Vocational Association

Frank C. Moore

George H. Fern

Anna K. Banks

Ira W. Kibby

Claud M. Andrews

W. F. Stewart

J. A. Guitteau
(Died Jan. 24)

Introducing AVA Officers

M. D. Mobley

Charles W. Sylvester

John A. McCarthy

L. H. Dennis

Four officers join the AVA executive committee for the first time in 1945. Miss Banks, Mr. Kibby and Mr. Moore were elected for three year terms; Mr. Mobley for a one year term. Each of them brings to AVA leadership a distinguished record of service and experience.

M. D. Mobley, president, has been a principal, state administrative officer, author and film actor. Holding degrees from the University of Georgia and Cornell, he became assistant state supervisor for vocational agriculture in Georgia in 1926 and later assistant director; then in 1937 state director for all vocational education. In 1940 he became president of the state directors group and was also named "Man of the Year" in Georgia agriculture. His histrionic abilities blossomed when he played a major role in an educational film produced by Sears, Roebuck and Co.

Anna K. Banks, vice president for home economics, has education in her blood. Her grandfather was on Texas A & M's first faculty, her father its first student and subsequently on the faculty. Following early training in Texas Miss Banks studied at Columbia University, University of Oklahoma and the University of Iowa. She became director of the Home Economics Department at Oklahoma and for the past four years has been state supervisor of home economics education in Oklahoma.

Ira W. Kibby, vice president for business education, includes in his experience newspaper work, salesmanship, rehabilitation education, and school administration all of which he uses as chief of the bureau of business education, California State Department of Education. Having taken

(Concluded on page 43)

VOCATIONAL TECHNICIAN DEMAND IN INDUSTRY DESCRIBED IN NEW BULLETIN

They can use 50,000 per year

WHERE will workers for jobs like these secure training?

Dynometer technician	Industrial safety officer
Spectographist	Compounder
Magnaflux inspector	Diagramist
Radio material specification writer	Densitometer operator
	Timber cruiser
Power dispatcher	Time study expert
Grid mechanic	Expediter

These are vocational-technician jobs. To hold them a man does not need a college degree. But he does need more training than he can secure in the average present day vocational school.

Industry says it can use 50,000 vocational technicians per year. Although industry got along with 2.7 vocational technicians to every graduate engineer as late as 1931, times have changed. Technological progress in one decade boosted the ratio to 5.2 technicians to one engineer.

Jobs Blue Printed

Jobs that 22 great American industries say they have for vocational technicians have been blueprinted in a new U. S. Office of Education publication — "Vocational-Technical Training for Industrial Occupations," (Vocational Division Bulletin No. 228). Scores of vocational educators shared in its production. No bookshelf on postwar educational planning can be complete without this document. It can be obtained through the Superintendent of Documents, Washington, D. C., for 40 cents.

What is vocational-technical training?

"Vocational-technical training is designed to prepare persons for, or upgrade them in, technical occupations for which engineering school graduation is not required."

Bulletin 228 points out that vocational-technical training differs from trade training. The former stresses definite industrial applications of the laws of science and technical knowledge and the necessary skills involved. Trade training emphasizes the mastery of manipulative skills, together with an understanding of the sciences involved.

Many vocational educators served on the 25-member national consulting committee sponsoring this report. Industry, labor and higher education were also represented. Many more vocational educators collected data on 22 industries through surveys conducted by state vocational boards in 23 states.

Committee chairman, J. C. Wright, Assistant U. S. Commissioner for Vocational Education, supervised the study carried forward under Lynn A. Emerson, professor of industrial engineering, Cornell University.

Cuts Across Programs

The Bulletin does not attempt to say what schools or institutions should meet this new need. In fact, it suggests that a variety of institutions will serve this expanding field of American education.

"This study of vocational-technical education," the report declares, "cuts across all of these programs (Smith-Hughes and George-Deen programs, engineering colleges, junior colleges, technical institutes, ESMWT, etc.), and attempts to pull together those aspects which meet the definition of vocational-technical education . . . it cuts across age grade levels of training and includes work done in the high school and in the post high school years . . . it cuts across organizational patterns and includes training offered in public, private non-profit-making, proprietary plant programs and others."

Training of technicians in the United States is not new. Two of the institutes described are more than 100 years old. But the United States has never had a well-developed vocational-technical training program. Jobs listed have usually been filled by upgrading skilled workers or undergrading engineers, or by those who "flunked" engineering courses.

This hit-or-miss method of training vocational-technical experts will no longer satisfy the changing needs of industry.

(Continued on page 31)

OWI photo by Arthur Siegel

LABORATORY TECHNICIAN

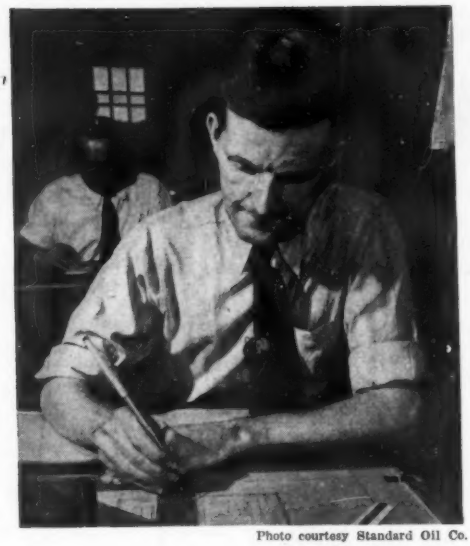


Photo courtesy Standard Oil Co.

DRAFTSMAN

OWI photo by Al Palmer

GRADUATE ENGINEER

OWI photo by Al Palmer

PRODUCTION SUPERVISORS

OWI photo by Al Palmer

INSPECTOR

OWI photo by Al Palmer

SALESMAN

"FOR EACH GRADUATE ENGINEER INDUSTRY WANTS FIVE-PLUS VOCATIONAL TECHNICIANS."

Diary of a Day in a Wartime Cafeteria Discloses Problems Training Must Cope With

the HUNGRY HORDE

by AUGUSTA CLAWSON

REMEMBER Augusta Clawson's incognito adventures working in a west coast shipyard? The author of *Shipyard Diary of a Woman Welder* has again sought through personal experience to learn what training workers need. This time it was the food worker field. Through two super heated weeks of a Washington summer Miss Clawson worked in a large cafeteria serving over 3,000 Navy employees. Based on her reports to the U. S. Office of Education—one day of which we here present—Miss Clawson wrote six suggestions to trainers of food workers.—THE EDITORS.

"Breakfast from 6:55 a.m. to 8:00; snack bar from 8:00-9:00; lunch from 10:55 a.m.-2:00 p.m." Easy words those, but do you know what makes a cafeteria tick? Stick around for a day and watch. Four forty-five and the alarm shifts you from neutral to first gear. A quick shower and you're in second, and by the time you're rolling along in your little coupe through the blackness of not-quite-dawn, you're in high and ready to make time. Park your car outside the Navy Annex, show the guard your badge, walk through to the entrance listening for Reveille in back of you to tell you that it's 5:50 and the Waves are being yanked from their slumber too. Go down the cafeteria stairs into the heat and closeness that accumulates during the night. Go to your locker, change quickly into your uniform, then out into the cafeteria again to let in some cool morning air. Thank goodness you're tall and can reach the windows. Start along the left side—27 on that side, 30 on the other. Eleven across the back. Every two or three windows flip on the electric fan you pass. Rolling up a nice total now. Twenty windows, 7 fans. Interruption. "Please, ma'am, can you get me a clean uniform that will fit me?" You leave the windows, walk to the office for the laundry room key, walk the entire length of the cafeteria to the laundry room, issue the uniform, record it, and go back to your windows.

"Kin I get a uniform, ma'am, I wasn't here yistiday and I needs a clean one." Trot down to the laundry room again. Your day's marathon is really beginning, and your feet notifying you that the floor is of stone.

Back to the cafeteria. Leave the rest of the windows. See if Marion Jones is at her station. Marion is coffee maker. She's there all right. Watch the efficiency she has developed in her two weeks on the job. First turn the big spigot, let out the gallon cup of water left in when they cleaned the urn. Now dump 3½ pounds of coffee into the coffee bag. (Make note to change to a new bag tomorrow. New bags twice a week). Fix the bag full of coffee in the top of the urn and start pouring in the nine gallons of hot water you'll need. When you get to eight gallons draw off three of the eight and pour them through again. Then with No. 9 gallon you can rinse off all the grounds that get up around the edge of the bag. Now check your steam pressure. Keep it at 18. Fill up your urn with water for the next shift, and move on to urn No. 2. Three urns on Counter B and C, 2 on A. Leave Marion to her routine and go back to the kitchen to find that the Counter Supervisor is out ill. Everyone automatically pitches in to avert catastrophe, for rain or shine, snow or hail, with better or worse, sickness or health, always the hungry hordes must be fed—in spite of ration points.

One of the supervisors checks to see that the three orange juice girls are working, for the public can drink far faster than they can squeeze unless they get a good head start. The canned fruit juice "pour-er-outers" are at work. Steam table girls are setting up their counters. The ice and porter man is icing the beverage and milk counters, and delivering milk. And all the time you keep in mind that counters A, B and C *all* must be checked for plates, clean trays, canned fruits, cereals, doughnuts and all the other breakfast items. The toast and hot bread girl from counter B stops you. "There's no butter on our counter." You go to the kitchen to check on Violet, chubby Violet who makes you think of a butter ball anyway. She's absent. Quickly, a substitute. We'll use Gretel. So Gretel starts unwrapping layer after layer of butter squares and drops them one at a time in white paper butter chips spread on a tray.

The clock must have skipped while we weren't looking. It's time to start serving. On every side someone needs something. "A clean tea towel"—get one from your supervisor. "A needs more saucers." Look for Jack who buses dishes. As usual, not to be seen. Go to the Men's Rest Room, open the door a crack, lean your

back against it and shout "Jack." And surely enough presently that gentle unhurried voice, "Yes'm, you wants me?" You do want him and you hustle him to counter A with saucers. "B needs more toast." You look at the toaster. It's off and the toast girl has disappeared. You locate her, turn on the toaster and start them both operating again.

A very blonde, very irritated Wave says, "Why is there no cantalope here? There is some on that counter." Patience again, "We're so sorry; there is no more." You find you are getting frantically hungry yourself as you sniff the air from the bake shop. Sugared buns this morning, steamingly fresh and hot. Will there be any left for the staff after the public has eaten? You know there won't be.

You walk through the bake shop to check on butter ball Violet's substitute and your eye lights on chocolate layer cake with incredible white icing. It looks too good to be true. And chocolate your weakness. But there won't be any left, any more than there was of the orange layer yesterday.

Speaking of chocolate, the manager decided something must be done to get rid of that supply of prepared cocoa. It just isn't any good made with water as directed, or even with milk. She experiments with about a quart or two quarts of it. Some milk, some chocolate syrup, some water and evaporated milk. Taste it, keep track of the amounts. The mixture is successful; it tastes good. Multiply it by ten and make five gallons as an experiment. The first two gallons are ready and on the counter in short order. Elizabeth, who is cleaning up her steam table, offers to serve it. There is no cocoa girl for cocoa is a new item and a new job. At counter B, Flossie takes over too, adding this to her job of cleaning steam table. Suddenly the public eye spots cocoa and it begins to go. Nine minutes later the two gallons are gone. The three gallons to come are not quite ready. In 15 minutes they appear and go as rapidly. Flossie runs out first and "borrows" several cups for the customers from Elizabeth. But Elizabeth goes only so far. When Flossie comes back for another, Elizabeth balks. "You leave my cups and my cocoa alone. I has to look after my customers." Flossie makes one more try. No luck. She grins her good-natured negro grin and goes back to B. Elizabeth grins too, but she has her cocoa, and she serves her last ten cups with an air. Tomorrow the cooks will make 15 gallons. That little ten-minute experiment has succeeded and the stock of prepared cocoa will no longer take up unnecessary room in the store room.

Fifteen minutes to go before breakfast is over. Suddenly Jane leaves her station at Steamtable B. "I'm tired. I have to go home." This isn't like Jane. She never soldiers on the job. You laugh and say "I know, lots of us are. If you blew a whistle for everyone who's tired to go home, we wouldn't have many left." But Jane is not to be cajoled. She's tired, and she's checking out to go home, now, right in the middle of dishing out eggs and bacon, fried potatoes, french toast. And what can you do about it? Jane goes home. The time is getting shorter now. The lines are increasing with the ever-present last minute eaters. The cooks are making strides towards lunch preparation. The bakers are still turning out sweet buns and bran muffins. The tempo increases. More toast to A, more eggs to B; more dishes to C. Bus boy, take out dirty trays when you deliver clean ones. Doughnut girl, get your plates filled. No more doughnuts? Has B any? No. C? No. Get some from the lunch room. The minute hand of the clock moves relentlessly on.

Thirty minutes and breakfast is over. Thirty minutes to go before snack bar opens again for the constantly hungry. And the check-up begins all over again. Dishes, silver, trays, doughnuts, coffee, etc., ad infinitum. And 15 minutes or 20 before time to open there is already a line formed waiting, waiting, waiting, always waiting.

To Trainers of Food Workers

"Feet," says Miss Clawson, "are the main subject of conversation among cafeteria workers. Anyone training food workers or supervisors should give ample attention to the problem of proper shoes and proper care of tired feet." She adds these six suggestions:

1. Duplicate production tempo. Use production techniques. Develop per-unit-speed. Ten sandwiches or eighty dozen—there is a "production way" that eliminates waste motion.

2. Gradually condition the trainee to take an eight-hour working day on her feet. Supplement the half day training with after school employment. Prepare her psychologically and physically for the atmosphere, working relations and strains of "feeding the public."

3. Teach only essential, related theory. Cafeteria workers may not need to understand nutrition fundamentals. They must know how to select work clothing, work safely, interpret menus, clean machines, and handle food in a sanitary way.

4. Require each trainee to eat occasionally in public restaurants (if only a cup of coffee). She may never have "eaten out." Tell her what to observe. Have her report.

5. Offer short intensive training to upgrade workers and supervisors on the job.

6. TAKE A FOODS JOB YOURSELF DURING VACATION OR SATURDAYS!

Examine EVERY Proposal

FULL opportunity for employment for both men and women, more attention to mental and physical health, recognition that democracy begins in the home, consumer education and better housing—these Mrs. Dora S. Lewis, president, American Home Economics Association, recommended for "education for family living" in her address before the AVA Reconversion Vocational Training Conference at Philadelphia.

"Our problem," she said, "is to see clearly what it is we want for families and then to set about developing the wisdom and the skills needed to achieve our goals."

This will be an innovation, Mrs. Lewis pointed out, because "we have never fundamentally attacked the problem of creating a society in which families would have a chance to function effectively. . . . Other values have taken precedence . . . human resources, principally developed in families, have had only marginal attention. . . . The family can and must play a leading role. It can only do so, however, if we are willing to examine every proposal and plan for reconversion and peacetime living in terms of how they will affect the family."

Mrs. Lewis then turned to major readjustment problems:

GOALS FOR HOMEMAKING

1. The stability of the nation can be assured only through the stability of the home.

2. Democracy will not be achieved in community, state, and national life until the principles of democracy are practiced in homes.

3. Education for family life should become part of the experience of boys and girls, men and women. Women need additional education for their unique functions in homemaking. They can be helped to place greater value on their services to families and to see homemaking as their share in building the culture of their time.

4. Although men and women of tomorrow will be world citizens and may both be wage-earners, they will still depend for much of their personal happiness upon home and family life.

5. Science and invention have placed an adequate standard of living within the reach of every family.

6. Educators must join forces more significantly in the social action that is necessary if conditions are provided that will make rising levels of living possible.

7. We have to believe that our future will be what we are strong enough and resolute enough, and intelligent enough to make it.

Full Employment

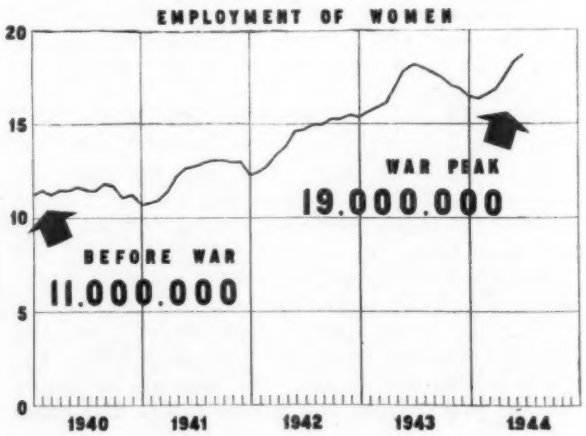
"It is encouraging to know that business, agriculture, labor and government are working on this problem. But education too must shoulder heavy responsibilities. Men and women and their families must understand the reasons for unemployment delays and they must be put in touch with all the advisory and training services.

"Priorities for men will undoubtedly jeopardize jobs for women. In homes where the man's income is high enough to provide adequacy in living, women workers may be willing to return to their homes. Certainly mothers of young children should in most instances be urged to do so. However, many women must work to support dependents. Fifty to 80 per cent of those working wish to hold their jobs. The largest proportion of these women are over 35 so that the welfare of young children is not involved.

"Women have demonstrated their adequacy on jobs and they expect to be given equal opportunities with men for adequate training for job advancement according to ability, equal pay for equal work, unemployment insurance, and a share in making the policies under which they work. . . . It should no longer be necessary for women to choose between marriage, parenthood and paid employment. Already a few employers are providing part-time work for married women so that their homemaking and child-rearing functions can be carried effectively along with wage earning."

Mental Health

Selective service board findings and Army training reveal that "mental health has been disregarded to an alarming extent." . . . Special services are much needed now to help families adjust to the unusual emotional



strains. "War casualties and disabilities are devastating to all families. Divorce rates are expected to rise. Many families and returning veterans have changed in long periods of separation." Juvenile delinquency is likely to rise still further immediately following the war. The 2,800,000 youth 14 to 17 who have worked during the war—"They must not have their confidence in themselves shaken. It will take the combined efforts of churches, schools, social agencies, and carefully planned use of professional services to help these temporarily uprooted individuals and families to understand their situations; to again learn how to work effectively and creatively as members of their families and larger social groups."

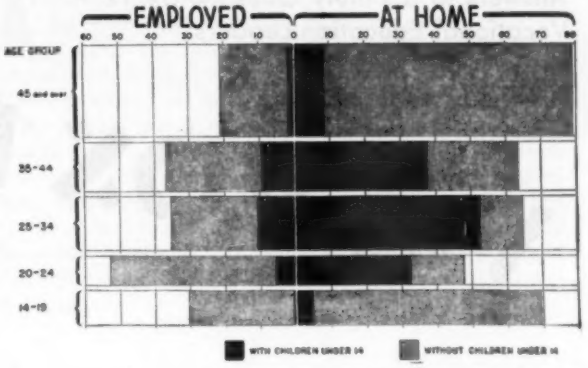
Quoting Dr. Colman Griffith: "If happy adjustments can be made at the family level, happiness will flow through all the affairs of the country. If the family fails, it might well be impossible for industry and government to succeed."

Democracy in the Home

"Studies show that children need homes in which their health is protected; where love and appreciation are freely given. They need to be helped to develop confidence; to feel that they have an important role to play in the family. For parents this means understanding each child and provision of experiences appropriate for his capacities, interests and temperament. Family life provides the best place for teaching the ways of democracy. We must find better ways of helping homes become miniature democracies sending family members into community life equipped to make the democratic way operative there."

"Democracy," as Jan Struther says, "happens to be the whole essence of family life. In some households, a monarchy exists; in others, a diarchy; in others, again, total anarchy; and in many—alas!—a dictatorship. But I think you'll agree that the best and richest form of family life is a democracy, in which every member is as distinct and as individual as a scrap of flowered print in a patchwork quilt, and yet, like that scrap, is part of a harmonious pattern. In a happy family life, as in a democracy and as in a federation, peace and poise are attained by a delicate counterpull between duties and privileges, between rights and responsibilities, between dependence and independence. Democracy begins at home; and it begins very early in the morning—not at breakfast, but when the first reluctant eye is opened by the first devilish trill of the alarm clock and when everybody thinks that everybody else takes much too long in the bath. The home, and not a college of political science, is the place to learn democracy."

Two-fifths of American women over 14 are now employed



Graphs from Research and Statistical Service, Vocational Education Div., U. S. Office of Education

Education for Homemaking

Birthrates rising from 17.9 per 1,000 in 1940, to 21.9 in 1943, and marriages anticipated as troops return, are "additional reasons for immediate provision of education for marriage and parenthood. Home economics, sociology, psychology, and mental hygiene have made beginnings but there is a cooperative job to be done that goes beyond anything yet accomplished. Stability in homes cannot be assured unless both men and women come to homemaking with the abilities and understandings required of them. Directions in which we move in education for family life are of vital consequence and must include general education for all age groups as well as special education for most girls and women for the managerial and technical aspects of homemaking. Women and girls are entitled to specific and practical education for their unique functions in both relationships and maintenance aspects of homemaking.

Health

"Of 13 million selective service registrants, 5 million of those between 18 and 37 were found incapable of military service." This fact reveals need "for an all-out national effort for health, both mental and physical." Educational programs that have proven their value in wartime should be continued and extended. We can improve our guidance of families in planning improvement in the production and utilization of food. We can work to extend compulsory cereal enrichment, community food preservation centers, school lunch programs, industrial feeding, and effective supervision of public food service. These services can be used as a means to emphasizing the relation of food to health.

"Education is also needed for greater acceptance of public health service, for more support of group insurance and for hospitalization plans, for extension of public provision for maternal and infant care, and widespread recognition of the need for extended programs of social security.

"Reports regarding the availability of medical care in many areas of the United States are not encouraging.

(Concluded on page 43)

Ask How Postwar Reconversion Will Affect Families, Urges Mrs. Dora S. Lewis

Answers to a Timely Question by 12 Vocational Education Leaders

Voc VOX POP ? ?

Q "WHAT PRESSING OCCUPATIONAL ADJUSTMENT NEEDS MUST VOCATIONAL EDUCATION BE PREPARED TO SERVE IMMEDIATELY AFTER THE WAR?"

Your AVJournal commissioned an Inquiring Reporter (Frances Balgley, acting director, Information Service, U. S. Office of Education) to put this question to AVA members attending the Philadelphia convention. "Please make your replies brief," asked the Reporter. Following are the responses.

A **Ray Fife,** Teacher Trainer, Ohio State University:

Our first duty is to our men and women returning from military service. Young men from farms must be retrained in agriculture. Young men and women from part time farms and villages must be given careful guidance, training and placement. All workers who have been given emergency training must be readjusted in civilian pursuits.

A **Maude G. Woods,** State Department of Education, Florida:

Vocational education must be prepared to help make the adjustment for our returning young veterans from the military front to the distributive occupational front. Every division of distribution—old and new—will be in urgent and immediate need of trained personnel.

A **Paul L. Cressman,** State Director of Vocational Education, Pennsylvania:

Millions of men and women took short intensive training for very specific war jobs. Peacetime job demands will be different from these. Great numbers of returned armed forces and war industry workers will need to be prepared for these peacetime jobs.

Training programs must be greatly expanded to occupational fields for which little or no training is now available.

A **M. D. Mobley,** State Director of Vocational Education, Georgia:

One of this country's prime postwar objectives is to provide jobs that will give every American a decent standard of living.

Vocational education must be prepared to play an important role. Workers must be trained to be vocationally competent to secure, hold and progress in jobs, if we are to avert another relief program. Training must be provided for returning veterans, war industry workers, youth reaching employable age, and other adults.

A **Lynn A. Emerson,** Assistant Dean, College of Engineering, Cornell University:

Among the many occupational needs facing vocational education are these:

1. Development of leaders with wide vision of vocational education and its many inter-relationships.
2. Appraisal of curricula of vocational schools in the light of present day developments.
3. Development of vocational-technical programs to meet the greatly varied and rapidly increasing scope of training for the technician occupations.
4. Determination of the agencies to handle the various aspects of vocational technical education.

A **Frank E. Wimberly,** State Director of Vocational Education, New Mexico:

There will be millions of occupational changes by individuals. There will be competition for jobs. Industry must be determined to produce and sell. Industry and labor must agree on what has been called a favorable economic "climate." Government must help create that atmosphere. Vocational schools, making liberal use of advisory committees in all fields, must be prepared to train and retrain those who want to work and will work if opportunity exists.

A **O. I. Paulson,** Acting State Director of Vocational Education, Ore.:

Vocational education must be prepared to render occupational adjustment needs for the following groups: Returning servicemen and women, displaced war workers, high school students, and adults.

After the war the occupational needs of individuals will require a greater scope and variety of activities. Therefore vocational education must prepare plans

now for financing, staffing and equipping vocational schools.

A **Florence Falgatter,** Department of Home Economics, Iowa State College:

One of the most complex adjustments in the postwar years is that which the many women who have been working outside their homes will face. Will they recognize their efforts in the interest of family life to be of as much social value as their emergency contribution in industry? Will the economic independence that comes from work outside the home become just a war memory for these loyal citizens? These questions cannot be answered by the women alone.

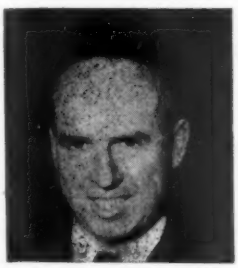
A **E. E. Ericson,** Director, Division of Industrial Education, Santa Barbara College:

1. The adjustment of men and women of the armed forces into civilian occupations. Even if the provisions for return to former occupations hold good, there will be a sufficient number of such persons who never held a regular civilian job to make this problem pressing.

2. The readjustment of workers from specific war production occupations to peacetime production industries.

3. The return to school for further education by those individuals who dropped out prematurely to take war jobs.

A **Carl M. Horn,** Chief, Occupational Information and Guidance, Michigan:



The greatest single weakness in vocational education is inadequate counseling. One hour per pupil per semester should be the minimum time provided.

Even more important is the provision of trained personnel. Every vocational teacher should have practical training for and experience in counseling.

Better understanding of pupils and the world in which we live and work is the most pressing need for postwar occupational adjustment.

A **Edward Berman,** Director, Vocational Education, Bayonne, N. J.:

1. Among demobilized servicemen will be a large number who will want to train for a new occupation.

2. Ten million war workers are unskilled or semi-skilled. After the war occupational needs will be changed and these workers will have to be retrained.

3. Publicity glamorizes many fields which offer few jobs. A guidance program must function so that workers may be trained for fields that offer jobs.

A **D. H. Shay,** State Supervisor of Industrial Schools for Men and Boys, Massachusetts:

After the war over twenty million people will be released from the armed services and from industries no longer necessary in a changed economy.

We should plan now for much additional floor space and necessary equipment for expansion of all types of part-time education to include increased apprenticeship, especially in the building trades; for short unit training in scores of service occupations to include household appliances, food preparation, preserving and handling; and for short unit training in industrial adjustment.

A **Martha Creighton,** State Supervisor, Home Economics, Virginia:

Homemaking education should help wives and mothers to realize that their greatest contribution to peace-time living will be the making of a happy well ordered home. They may have to operate on a reduced budget but they must be helped to realize that satisfactions can be derived from their roles that far surpass achieving an independent income.

A **C. M. Miller,** State Director of Vocational Education, Kansas:

There are three groups who will need immediate occupational adjustment following the war: First, returning military personnel; second, war production workers; third, youth of high school age.

Some military men may need temporary employment, while they make emotional adjustments; others will be ready for permanent employment. All of them may need retraining.

War workers will need reconversion training and, in many cases, reconditioned attitudes to make them satisfied with more work at less pay.

High school youth have been trained to participate in the war effort. Suddenly, they will find themselves facing a world that doesn't need them for war work. They must have an opportunity to prepare for usefulness in postwar developments.

Vocational education has some responsibility in all these efforts.

MESSAGE FROM CANADA

If there has appeared to be a lack of interest in vocational education in any part of the United States or Canada in past years, such a point of view has surely been altered by the success of the war training program carried out in the schools. The war has popularized vocational education. The people will expect much from our vocational schools in the future. Can we teachers, or school administrators, plan and administer vocational education in such a way that the people will not be disappointed?

C. C. Goldring, Supt. of Schools, Toronto

SHOULD WORK BE PART OF EDUCATION?

They Discussed Work Experience: Left to right around the table: Thomas Boushall, president, Morris Plan Bank of Virginia; Kermit Eby, assistant to director of research, CIO; Kennedy Ludlum, NBC; John A. McCarthy, assistant commissioner of education, N. J.; Robert J. Watt, international representative, AFL.

Photo by Bonn

The pro and con of this important issue by four leaders in labor, industry and education

FIVE men sitting before NBC microphones addressed themselves to one of education's knottiest postwar problems—"Should Work Experience be Part of Education?" If so, under what controls? At what ages? For what purpose? Here is, in brief, what they said on a nation-wide broadcast sponsored jointly by the AVA, U. S. Office of Education, National Education Association and NBC:—

McCARTHY: I'll begin by saying that work experience is considered an essential part of organized vocational education. Work experience should be a part of education, but only under certain conditions.

BOUSHALL: I think work experience helps train our boys and girls in the rigid requirements of excellence and thoroughness in the work-a-day world.

WATT: When we advocate the educational values of work experience, we must be concerned with the particular kinds of work experience.

EBY: It seems to me that we should be bending all of our energies to provide a high level of education for boys and girls instead of diverting their energies to a program of work experience as a part of education.

McCARTHY: Free public instruction, with or without work experience, is still in its infancy.

BOUSHALL: That's right, Dr. McCarthy. The only schooling that came to most men and women through all the centuries of history was the work of the farm or chores of the household, service under arms or indenture to some trade. The pendulum has indeed swung rapidly from a system of all work for children and youths and no education, in vogue for over 1900 years, to no work and all education, mostly within the latter part of the past 100 years. Perhaps the time has come when our youth should turn back for its own good to a combination of work *and* education. What has happened in all too many areas is that education has become too rarified, turning in upon its own axis, revolving in an unrealistic area of instruction for instruction's sake.

McCARTHY: Don't you think public education of the masses is so new that it's still experimental, and we may be unduly critical?

Two Kingdoms

BOUSHALL: Certainly we must remember that there are extenuating circumstances. Education didn't foresee that half the population would go off the farms and into urban pursuits. By and large, education and the business world still seem to be two kingdoms wholly out of touch with each other.

ANNOUNCER: Whereas each is actually dependent upon the other.

BOUSHALL: Exactly. Education is supported by taxes. Business receives all its workers from the school room. Yet they have for decades stood with their backs to each other. Each needs but to pivot and look the other squarely in the face to see an essential, coordinate partner.

McCARTHY: I think we've made a good start toward the closer cooperation you're talking about, Mr. Boushall. We—and I mean not only vocational education people, but a good many other educators as well—consider that work experience is an essential part of organized vocational education. We have the Smith-Hughes Act. That law specifies that there shall be directed or supervised practice in agriculture, either on the school farm or other farm, for at least six months per year. It recognizes that there is a real and practical experience in purchasing seeds, fertilizer, animals,

and poultry flocks, and there is an additional phase of work experience in bringing the farm project to a saleable stage. That same law specifies that instruction in the trade and industrial school shops should result in a usable product. And it provides that one-third of the moneys available for trade and industrial education be spent on part-time education. In many states, directed home activities are considered an important phase of the home economics instruction. And while it's hard to measure the results of this work experience program in dollars and cents, there's evidence of its value in the form of better family relationships, more intelligent consumer buying, and improved home conditions. The George-Deen Act, which came along later, specifies that all pre-employment training in selling and distributing must be given on a part-time work and school basis. That work experience time must equal and preferably exceed the time spent in school.

Work experience may have gained a bad name through some of the things that have *passed* as work experience in earlier years. Work experiences, such as they were, were associated with the farm chores, the street trades, and the casual jobs which were available in the rural and urban communities. They were unsupervised and often involved physical and moral hazards.

ANNOUNCER: In many instances, I'm sure, the young people were exploited.

For Advisory Committees

MCCARTHY: Yes, they sometimes were. And in those days educators placed little value on experiences gained from youth employment. They didn't recognize the relationship between school subjects and job experiences. And there was a complete separation between the schools and occupational life. I believe the Federal government should require the participation of truly representative and responsible advisory councils of labor, management and related agencies.

WATT: They're *especially* necessary in the field of vocational education, where work experience can be provided.

Should Education Remain in the School . . .

. . . or Is This Also Education?

MCCARTHY: Work experience has not been altogether good for the development of sound programs. Young people have been able to find jobs at top wages —jobs in no way related to their educational programs and in some instances in an environment which is none too good for their future.

Best Place in School

EBY: It seems to me that since the beginning of the war, many educators have been making a virtue out of necessity. Face to face with the national demand for more workers, they have accepted the decline in school enrollment which came because high school and college boys and girls are going to work. When the war started, we didn't know how thoroughly we would need to mobilize our manpower. But now we know that it's possible to turn out all the tools of war and maintain a high level of production of domestic goods too. We also know that the time is past when it is necessary to sacrifice the education of our boys and girls. We need to carry on the Army's program of developing the literacy of the American people. We need to provide federal aid so that wealth is taxed where it is, to educate children where *they* are. Our young people must understand the problems of war and peace, understand the necessity for political participation, learn to distinguish truth from propaganda. The only way they can achieve such intellectual maturity is through an educational program which emphasizes the social sciences and which continues until a youth nears maturity.

ANNOUNCER: You think there isn't a place for work in such an educational program?

EBY: I do not mean that work is not a worthwhile experience. We should be willing to help in conservation programs—projects of that sort. But the basis for wanting to undertake such work is the understanding of the necessity for all of us working in the public interest. And so I think the best place for our boys and girls is in school. And while they are in school they should have equal opportunity, the chance to develop various talents, to work with their hands in the wood shops, metal shops, laboratories and engineering plants, to get a general background for making the

adjustments to our highly technological society.

McCARTHY: I agree with some of what you say, Mr. Eby, but I think there is so much to be gained from the right sort of work experience that we must not neglect it. Perhaps I should explain in a little more detail just what goes on under a good work experience program. The sort of programs I've been talking about are designed to allow young people to spend part time in school and part time on the job. Some schools use a schedule which involves one-half day on the job and the other half day in school. Others alternate full days in school with full days on the job, and still others alternate a week in school with a week on the job. Generally employers and the young people, too, like the "week-about" systems best. A boy or girl can work on a job during the whole week and participate in all stages of its progress.

ANNOUNCER: And in his week in school, I take it, he studies about the things he is working on.

McCARTHY: Yes. In the case of some of the Rahway projects, he studies mathematics, science, and drawing, which definitely relate to his work on the job. He has a motivation which it's often hard to get in school. And his social studies include labor laws, industrial organization, industrial economics and industrial history. Florida, Georgia and Alabama and other states have developed cooperative programs in a wide range of occupations, including selling and service trades.

Tryout Valuable

BOUSHALL: There's something else that a good work experience program accomplishes. I know a girl who thought she wanted to be a department store personnel manager. Well, after she'd been in college for a few months, she got a job, under the work experience program, in a big department store. It wasn't long before she knew that she wasn't cut out for that work.

WATT: So she changed her course?

BOUSHALL: Yes, *and early in the game.* She tried hospital work; found that she liked it and could make a success of it. Also, she was able to spot the particular kind of hospital work—in the psychiatric department —for which she was best fitted. Instead of wasting the rest of her education time training in a direction she just *thought she might like to go,* she was able to apply herself to what she really wanted.

What Is "Work"

WATT: It seems to me that the general term "work" is confusing in the wide range of activities which it may mean. The mental energy expended by a youth in mastering a school assignment in mathematics is work experience with an educational purpose. And judged in terms of the educational values to be derived, the purpose of the work and the expenditure of energy is subsidiary to the development of the powers, capacities, and skills, whether mental or manual, that accrues from the expenditure of the energy involved. Now the American labor movement has often been identified by the public as being concerned solely with workers' education or with the development of vocational and technical skills. We're interested in vocational education, of course. But we're also interested in the sound, basic education of the citizen.

BOUSHALL: Lest it be thought that business is concerned with technical training only, let me point out that a rising demand for the products of this nation can only come from greatly developed and expanded cultural wants of the total people. If youth is trained to be able to operate involved and complicated machinery, and follow through on involved industrial and agricultural processes, it can earn a far higher wage and receive a far larger income than yesterday's or today's workmen. But that means relatively little in the expansion of the demand for the consequent products unless the appetites of the people have also been upgraded.

Competition From Youth?

EBY: It seems to me that in all this discussion of what we'd like to see in education, we've overlooked a very practical consideration—one that relates directly to work experience. Perhaps I should preface it by pointing out that some years ago a careful study was made to determine how long it took the average shop worker to learn a job in which he has engaged. It was discovered that it took only 3½ hours for 75 per cent of the workers to master their work. On the basis of these findings we certainly should not need to give boys and girls work experience in order to make it possible for them to learn their jobs.

McCARTHY: I'm going to have to disagree with you, Mr. Eby, I can see that.

EBY: Maybe so. But to go on, everyone who knows anything about the postwar situation realizes how terrific the competition for jobs will be. Fathers and mothers of America need to be given the assurance that they can adequately support their boys and girls. We in the labor movement do not want boys and girls who should be in school competing with their fathers for non-existing jobs. Nor do we want these boys and girls forcing down wage levels.

McCARTHY: Nor do we in vocational education. We want young people in job experience projects to receive equal pay for equal work.

EBY: But the problem is not an imaginary one. Assembly lines and highspeed production are dependent upon agility. A young person, 15, 16 or 17 years of age, can get a job ahead of his 40 year old father. This is not right. During the war, man-hour production was increased two and a half times—a situation made possible by the patriotism of the American worker and technological advance. This means literally limitless production and an eventual reduction of the number of hours men and women must work to produce the good things of this life. So this is no time to emphasize necessity for training new producers—it is the time when our energies should be bent toward educating people to know how to live as civilized human beings.

McCARTHY: I think we're all working with the same end in view, Mr. Eby. But we certainly don't see eye to eye on some of the means of reaching it.

EBY: I guess that's it. For I think that, with all that remains to be done in American education, we shouldn't, as I said in the begining, be diverting the energies of our boys and girls to a program of work experience as a part of education.

McCARTHY: While I believe that well supervised work experience is in many cases a necessary part of the sort of education we all seek.

by Vernon R. Lewis, Manager,
Training Department, Bell Aircraft Corporation—Georgia Division

Vocational education trains thousands of workers for the Bell Aircraft plant in Georgia

they make SUPER FORTS

WITHIN three years after the Japs' treacherous attack on Pearl Harbor, B-29 bombers built in Bell Aircraft's huge Georgia Division plant are proceeding on regular missions of revenge over the industrial cities of Japan itself. Bell's first all-Georgia B-29 rolled off the assembly line in December, 1943, a tribute to the earnest efforts of men and women who had been willing to lay aside peace-time pursuits to learn how to build aircraft.

Few of these workers had previous experience in industry. Skilled workers had already been lured from Atlanta territory to shipyards and other defense industries. They were, however, willing to enter upon intensive training courses set up by vocational authorities representing the Georgia State Board for Vocational Education. After completing pre-employment training courses they are employed by Bell Aircraft, and then continue training in modern shop practices and safety methods in classes conducted by Bell's Georgia Division's training department.

Supervisors predict that southern industry will undergo a healthy expansion as a result of this concentrated war effort and vocational training.

For a period of two weeks, workers hired by Bell Aircraft's Georgia Division receive supplementary training at the Central Avenue, and Booker T. Washington Aircraft schools in Atlanta and at the Rickenbacker Aircraft school in Marietta. They receive, in addition, two more weeks of basic training in riveting and drilling, in Bell's outside training department.

Every newly hired riveter or driller who enters the Bell Bomber plant must first pass a practical and thorough test at one of the proving benches presided over by representatives of the manufacturing, inspection, and training departments. Those who fail to pass these basic tests must undergo further training.

Many employees of Bell's Georgia Division are thoroughly sold on the fact that further education will lead to advancement. More than 1,200 people attend in-plant training classes each week. In the past 17 months a total of 13,367 people have benefited by such training. Hundreds are now taking advantage of courses operated by the vocational authorities as a part of their War Production Training Program, including technical related subjects pertaining to their jobs. More than 200 subjects are being taught in the plant training department.

Three training-within industry courses are offered: JIT, JRT, and JMT through the cooperation of the State Vocational Education Service. Many Bell employees spend two or three evenings a week at the Georgia School of Technology studying ESMWT courses in Engineering, Science, and Management for War Training.

Supervisory courses are conducted in the plant for those who have been appointed sub-foreman or to higher ratings.

Bell's Georgia Division has in its employ more than 1,200 discharged war veterans. Those who learned new trades while in the armed services take jobs where these skills can be employed to the best advantage.

Those who are physically handicapped are given vocational training for jobs they can perform without strain or inconvenience, and are given every opportunity to adapt and adjust themselves in the South's greatest war industry.

Workers in "barrels" approximating wing interiors must learn to work together by signals since they cannot see each other. Reduces hips also.

Albert Cloud, instructor, introduces new workers to the mysteries of Super Fort engine build-up.

Photographs, courtesy of Bell Aircraft, Georgia Division

Kenneth M. Wright Studios, St. Paul, Minn.

Horological training started at St. Paul Vocational School in 1919 serves World War II veterans

By A. C. TAYLOR,
Principal, St. Paul Vocational School

WATCHMAKING for war injured

IN 1919 watchmaking was instituted at the St. Paul Vocational School to rehabilitate veterans of World War I. The department has continued with students who have selected this occupation for a regular trade preparatory course. Now practically the whole enrollment is again World War II rehabilitation students.

The student, upon completion of the three year course, should be able to enter the trade as an advanced apprentice watchmaker. With an additional two years of placement training on the job, he should qualify as a journeyman watchmaker.

All watchmakers of Minnesota must be licensed. Licensed watchmakers can be trusted to do a good job of repairing on watches and clocks taken in by jewelers for repair. Since the licensing law went into effect, many of the expert watchmakers have become interested in our watchshop and the training offered.

Accredited

Recently a special schools accrediting committee of the UHAA (United Horological Association of America) visited our shop, examined methods of training, the work being done, and the system used to indicate student progress. As a result of their report to the American Academy of Horology at Denver, the St. Paul Vocational School Watchshop has been named an accredited school. This certificate is now displayed in the shop. Other states having licensing boards, such as Oregon and Wisconsin, recognize our school as one of nine U. S. accredited schools.

Watchmakers of St. Paul have a guild at which expert horologists speak on watchmaking. Junior watchmakers are welcome to attend these meetings.

An attempt is made, before enrolling a student, to determine whether or not he has the aptitude to perform the duties imposed upon him during the training and other requirements of the job after training. Completion of the ninth grade is a requirement.

Units 1 through 6 on page 27 cover six school semesters in the three-year course. The student attends shop three and one-half hours daily; and spends equal time studying related subjects such as English, social studies, blueprint reading, and science.

The student is also familiarized with the following related material which is considered essential:

Fractions and decimals; the metric system of linear measure; measure of angles; reading micrometer; ratio and proportion as applied to gears and to wheel trains; interpretation of shop drawing; making simple shop drawings.

Visual aids such as slides and movies are used.

The requirements of the present war have very definitely demonstrated the adaptability of the training outlined above to the demands of aircraft instrument repairing. This means jobs in new and interesting fields for the trained watchmaker. Evening classes have been in continuous operation since the beginning of the war training program for training preparatory to military induction and employment in aircraft instrument maintenance.

Placements of the graduates of this department have always been good. We are proud of a 100 per cent placement record during the depression years.

What Student Watchmakers Must Learn

Unit 1: To teach the fundamental operations of filing, turning, drilling, tempering, measuring.

Things to do	Technical knowledge required
Make brass vice jaws	How to use the millimeter slide gauge
Make a steel marker	Measuring in millimeters
Make gravers	How to care for the lathe
Make jewel seat burnisher	Lathe speeds
Make a staking hammer	Proper angle of the graver for turning various metals
Make small broaches	How to temper
Temper small tools	Reading simple shop drawings
Develop a proper degree of accuracy	Learn the properties of the various materials used
Make and fit clock wheelarbors	Safety in the operation of tools, materials and machines.
Make and fit brass bushings	

Unit 2: To teach the repairing, cleaning and oiling of clocks; to teach those operations and processes necessary in making clock parts.

Things to do	Technical knowledge required
Adjust escapements	Know the construction and function of gearing
Adjust striking arrangements	Correct names of tools and clock parts
Make essential parts	Effect of temperature on time
Finish steel and brass parts	Kinds of oil and their behavior
Clean metal parts	Mathematics of a clock train
Fit mainsprings	Know the science and mathematics of the pendulum as applied to the clock
Fit arbor pivots	Effect of Tidal air; its effect and control
Grind, polish, and reset worn pallets	Principle of the epicycloidal tooth; also hypocycloidal tooth
Fit a pendulum	
Make repairs on the clock case	
Fit new dials	
Fit new hands	
Regulate the clock	

Unit 3: Develop more skill and accuracy in the work of Units 1 and 2; apply the processes of Unit 2 to small lever clocks, desk clocks, and alarm clocks.

Things to do	Technical knowledge required
Disassemble small lever clocks	Proper depthing of the train
Clean all parts	Bimetalic construction of balances
Take up wear	Escapements
Assemble with a proper degree of skill and accuracy	Compensating pendulums
Gauge and fit main spring	Clock trains
Lubricate	Clock levers
Polish balance pivots	Clock springs
Polish and adjust pivot screws	
True and fit hairspring	
Polish steel pallets	
Adjust alarm mechanisms	
Adjust alarm hand	
Make case feet and thumb nuts	

Unit 4: Develop more skill and accuracy in the work of Units 1, 2, and 3; To teach watch repairing.

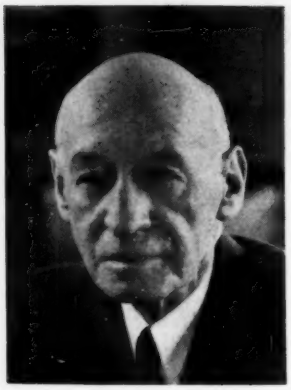
Things to do	Technical knowledge required
Disassemble a watch	Solution used for cleaning
Assemble a watch	Amount and action of lubricants
Clean a watch	Figure the proper mainspring for a watch
Fit a hairspring	Proper depth of the train
Fit a watch mainspring	Figure quick and slow watch trains
Gauge the mainspring from a sample	Friction of balance pivots
Wind the mainspring into a barrel	Calculate the gears of a watch
Draft the escape wheel	Power of a watch mainspring
Repair winding and setting mechanisms	Drafting of the escape wheel
Tighten the cannon pinion	

Unit 5: Develop further skill in the preceding units; to teach: balance staff making, pivoting, hairspringing, method of setting balance jewels.

Things to do	Technical knowledge required
Make a balance staff	Capillary attraction of oil
Make a jewel setting	Congealing of oil
Set the different jewels	Pivot areas
Replace a balance staff	Micrometer and its uses
True and poise a balance wheel	Pallet stones
Set pallet stones	Drop, lock
Set roller jewels	Draft and slide
Polish, measure, and fit roller tables, single and double	Locking face
True a hairspring, stud, and collet	Impluse face
How to vibrate a hairspring	Temperature effects on the balance wheel, the hairspring, and elinvar metal
Make, fit and adjust a guard pin	Effect of magnetism
Adjust a watch	Fitting a hairspring
Regulate a watch	Analysis of the lever escapement
	Reason for single and double rollers
	Passing hollow
	Roller shake

Unit 6: To teach all that is necessary to develop the student's ability along the line of general watch repairing; upon completion of this unit the learner should have attained the proficiency of a junior watchmaker.

Things to do	Technical knowledge required
Draft the lever escapement	Understand lever escapements
Make isochronal adjustment and position of balance	Understand isochronal adjustment
Fit balance staffs to adjusted watches	Flat and Brequet hair springs
Fit a lift spring	Elinvar and its use
Fit a catch spring	Care of special tools
Fit a crystal	Posture at the bench
Fit a pendant bow	Different metals and how to clean them
Fit a crown	Strength of the materials
Fit a sleeve and stem	Demagnetizing
Demagnetize	Technique in using tools
True flat and Brequet hairsprings	
Make over-coil	



Brig. Gen. Frank T. Hines, Administrator of Veterans Affairs. He is also Federal Administrator of Re-employment and Retraining.

Help for the maimed millions*

by Brig. Gen. Frank T. Hines,
Administrator of Veterans Affairs

THE prospect of a large number of casualties in our military and naval forces has made the American people keenly conscious of the problem of rehabilitation. Considering the bombings of civilian populations and the fact that there are probably sixty million men under arms throughout the world, the number needing rehabilitation may reach twenty million.

On the home front, the necessity of maximum industrial production for the war and the need of utilizing every available person has stimulated training programs for the disabled; and has set in bold relief the shocking waste of human potentialities existing in our midst.

They Fought the Good Fight

The American people through their Congress have made liberal provision for the rehabilitation of the nation's disabled soldiers and sailors, and workers also—who have fought the good fight and have kept the faith—through the passage of Public Law 16 of the 78th Congress for the vocational rehabilitation of the veterans of the present war; and Public Law 113 of the same Congress for the vocational rehabilitation of persons disabled in industry and others, and their return to employment. In addition there are the provisions for medical, educational and economic rehabilitation of Public Law 346 and the program of the Retraining and Reemployment Administration.

Rehabilitation is the process of restoring the handicapped in terms of his total situation, to the fullest physical, mental, social, vocational and economic functioning of which he is capable.

One of the values of a definition like this is that it enables us to see the whole picture. The whole personal and social situation is represented in terms of process. Rehabilitation is many sided and there is a tendency for each of those aspects to become a specialty and you know, and I know, that specialists (particularly those who conform to the definition of a specialist as a man who knows more and more about less and less), are inclined to view the individual, or the problem, only from the point of view of their specialty.

Partial viewpoints are often dangerous. There was a day when surgeons amputated legs without ever thinking of the problem of adjusting artificial limbs. The amputating surgeon today realizes there are functional as well as purely surgical aspects to his work. We know psychiatric problems are often solved by the development of a whole-hearted interest in a career; that occupational therapy is most effective when it looks forward to a suitable life vocation. Medicine, psychiatry, occupational therapy and vocational training may be viewed as one continuous process, one complementing the other.

Vocational Rehabilitation

The chief emphasis in rehabilitation today is vocational. For the vocational rehabilitation of veterans there is established in the Veterans Administration a Vocational Rehabilitation Service which has for its purpose the restoration of employability lost by virtue of a handicap due to a service-incurred disability. For disabled war workers and other civilians in need of vocational training to make them employable, there is the vocational rehabilitation program of the Federal Security Agency.

The Chief Emphasis in Their Rehabilitation Will Be Vocational, Says General Hines

Vocational rehabilitation includes guidance, training and placement, and also follow-up. Previous to entrance upon a training program, the individual undergoes a process of advisement in which his abilities and disabilities are considered in relation to the choice of an occupation.

In this connection let me say parenthetically that one of the principles of guidance is that it must never be prescriptive. Doctors may prescribe, for good and obvious reasons. Good vocational advisement never prescribes — for the simple reason that no individual is wise enough to undertake the responsibility of determining another person's life vocation. In guidance all the facts concerning the individual and the economic situation are laid on the table and a choice is made jointly after their full significance has been explored.

When an occupational objective has been selected, training is carried out by means of existing agencies — public or private trade, technical or business schools, colleges or universities, or industrial or business establishments which have adequate facilities for training on the job or of a combination of these. In every case the choice of a training facility or educational institution is a matter of selecting the best for the purpose. Usually a training facility is acceptable when it is clearly qualified as to space, instructional material and personnel to do the job that needs to be done.

(In his speech, Gen. Hines elaborated also on the four other aspects of rehabilitation stated in his definition, namely: physical, mental, social and economic. The speech in its entirety, "Rehabilitation of the Disabled," may be obtained by writing to the Information Service, Veterans Administration, Washington, D. C.)

*Excerpted from Brig. Gen. Hines recent address before the National Rehabilitation Association in Chicago.

Industrial Education NEWS

By LAURENCE PARKER

Combining Technical and Clerical Skills: Clara H. Krauter, principal of the Essex County Vocational and Technical High School, reports that Essex's new course on engineering clerical training has been very enthusiastically received.

The manufacturing industries in the county offer excellent employment opportunities to young women with a knowledge of shop processes, practices and terms and who possess clerical skills. They are needed as clerical assistants in the production planning and control and general engineering departments.

Recent developments in industry, particularly mass production and its attendant problems, have created a need for this type of service. Foremen, supervisors, section superintendents, engineers and persons charged with material and production control, planning operations, inspection procedures and scheduling, need the assistance of persons with knowledge and skill related to manufacturing procedures and who are capable of handling clerical detail.

This course is probably the first of its kind in the country, and is based on the advice of leading industrialists, who speak from practical experience. It offers training in the practices and methods of manufacturing and in techniques involving mathematics, science and drafting. The clerical training embracing filing, typing, stenography, office machine operation and other clerical procedures is very definitely related to manufacturing practices.

Those individuals who have clerical and technical skills, a good understanding of shop procedures, and a pleasing personality can look forward to advancement to very desirable positions. It is not unusual to rise to supervisory capacities. Many such individuals will ultimately become valued employees in the production, planning and engineering departments.

Appointment: Arthur B. Wrigley, state supervisor for New Jersey, reports that the Bergen County Board for Vocational Education has appointed as its first director of vocational education, Harold A. Weideli, formerly an instructor and supervisor in the Atlantic City vocational schools and, more recently, a regional representative of the U. S. Office of Education War Production Training Program assigned to New York State. This is the fourth county in New Jersey to develop an area vocational school program for trades and industries. The other county-wide programs have been in operation from 15 to 25 years.

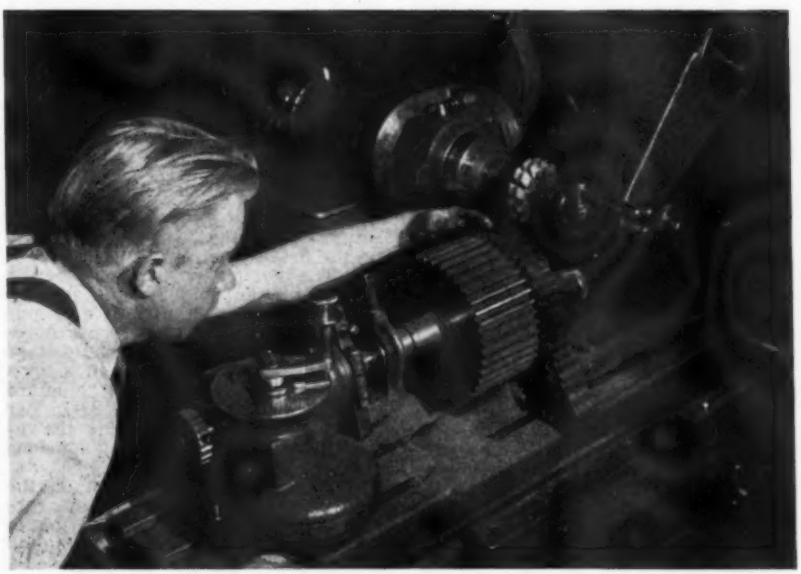
Wiggins Enrollment Up: For the first time since the war, there has been a marked increase in enrollment in regular classes at the Frank Wiggins Trade School in Los Angeles, and a decrease in enrollment for classes organized under war production training.

L. G. Stier, principal, reports that a great many of the veterans who are being discharged monthly in California are going to work because of the urgent demand for labor. A few are being trained, however, and many more will enroll when the opportunities for employment begin to decrease.

The cooking and baking classes are training men for the Maritime Service. These men, when selected for service, are sent to this school for training. Others are being trained to go into civilian cooking and baking plants.

For the first time in its history, this school is offering training in machine shop practice. The newly completed shop has equipment valued at $100,000 and will serve all the machine industries in the community. Most of the students come to school four hours and work four hours. In other words, they are giving up four hours of work with pay to learn the machinist trade. This program is organized to give general machine shop training on a long-term basis.

Telegraphy classes have been taxed to the utmost, due to the demand of railroads for telegraphers. One railroad company advertised it would accept anyone selected and trained by this school for immediate placement.



A Hartford (Conn.) Trade School student cuts a silent chain sprocket.

AGRICULTURAL EDUCATION NEWS

By Sherman Dickinson

ILLINOIS has been working for some years on what H. M. Hamlin calls "developmental centers." These are departments of vocational agriculture selected for the purpose of trying out, under practical but controlled conditions, various ideas for improving the vocational agricultural education program. Ideas are always cropping up, but Illinois plans to try them out before introducing them into the approved program.

Developmental centers are selected on the basis of a number of criteria. It is evident, however, that the local teacher is one of the most important. He must be a man who can and will cooperate in the study, and he must have the will and ability to handle the details.

One of the potentially valuable ideas now being tested and perfected in Illinois is that of the local advisory council for vocational agriculture. Other states are working on similar plans.

Trainee Recruitment: Nebraska, like many other states, has recognized that a greatly increased number of trainees in agricultural education will be needed to supply teachers for the enlarged vocational agricultural program which is so certain to develop after the war.

H. E. Bradford has written an eight-page pamphlet titled, *Teaching Vocational Agriculture—An Opportunity.* It is excellently illustrated and designed to interest young men in becoming teachers of vocational agriculture. The text explains the vocational agriculture teacher shortage, educational and personal requirements, rewards which may be expected and the activities of the teacher. The pamphlet has been given wide distribution in Nebraska.

Missouri has made an effort, through the influence of vocational agriculture teachers, to interest high school seniors in teaching. A bulletin now being written, will publicize and explain the whole vocational agriculture program. This, it is thought, will serve to interest qualified young men in vocational agriculture teaching as a profession.

Training Special Teachers: With farmer training urgently needed for augmented food production, the plan of employing special teachers was adopted. Farmers and others who had been unusually successful in particular enterprises or activities were employed to teach courses in their specialties. Most of these people had had neither training nor experience in teaching, and although some did very well, all could have profited from systematic help.

In some states, it was found possible to bring special teachers together for instruction in teaching methods. But in most cases, it became the responsibility of the regular vocational agriculture teacher, in his capacity as supervisor, to give what training was needed.

In order to assist these teachers in their "teacher training" capacity, several states issued helpful bulletins. In May 1944, California published a *Handbook for Special Teachers of Food Production War Training Classes.* This 50-page publication, written by S. S. Sutherland, develops the Job Instruction Training plan in a direct, understandable and interesting manner.

Chapter titles are: I. So They Want You to Teach!; II. Teaching—What It Is and What It Isn't; III. How Good a Teacher Do You Want to Be; IV. How "Grown-Ups" Learn Best; V. How to Teach Adults; VI. Teaching Classes Where Students "Learn by Doing"; VII. Teaching Discussion Classes; VIII. Getting Ready to Teach; IX. Special Knacks, Kinks, and "Interest Getters."

Missouri issued in June, 1943 a 16-page printed bulletin titled *Thought—Discussion—Action. A Handbook for Teachers of Farmer Classes.* This booklet describes the characteristics of farmer groups, the various leadership responsibilities of the teacher, desirable teacher characteristics, organizing the course, methods of instruction, discussion leading, using illustrative materials, stimulating action, and follow-up. A simplified survey form for each student is suggested.

Principles of Cooperative Research: F. W. Lathrop, specialist in agricultural education, (research) U.S. Office of Education, recently suggested these principles:

1. Administrative support for a cooperative study should be secured. No research project can be wholly successful unless local, state and federal administrators see the value of it and will give their moral and financial support. Gaining this support should be the first step.

2. The persons who are to cooperate in making the study should participate in organizing the study and constructing and testing the forms. A research worker is at a disadvantage when a strange study descends upon him. He feels like a mother bluebird when a cowbird lays an egg in her nest. Neither the bluebird nor the research worker likes to hatch someone else's egg.

A cooperator should be in on the study from the beginning. And, furthermore, his contact should be in person with other participators and not by mail alone.

3. Persons who are participating in a cooperative study should be genuinely interested in the study on which they are working. No one ever did a decent research job unless he was interested in his problem. If you are not interested in the problem set up, you should not participate. War emergency problems are excepted. If you wish to use the data you have collected in connection with a cooperative project for consumption within your state, it should be possible to use it in this way.

4. In a given cooperative study, the same forms should be used by all so that data from two or more states may be combined. This means a participator may need to collect data on some points in which he may not be especially interested. This is a test of willingness to cooperate. Members of our research group in agricultural education are willing to follow democratic procedures and defer at a few points to the will of the majority.

5. A plan for *coordination* should be agreed upon. In a region, the research committee should be the *coordinating* agency. The U. S. Office of Education is anxious to render all possible aid.

Off to Mexico: L. S. Hawkins, chief, trade and industrial education service, J. C. Wright, Assistant U. S. Commissioner for Vocational Education, and William T. Spanton, chief, agricultural education service, on the steps of the U. S. Office of Education. They were invited to our neighbor republic to advise with Mexican educational leaders on expansion and improvement of vocational education.

They Can Use 50,000

(Continued from page 14)

Contents

Here is what readers will find in this 306 page report: Chapter 1, characteristics of vocational-technical training; Chapter 2, preparation of the report; Chapter 3, developments and trends affecting vocational-technical training.

Surveys of 22 industries appear in Chapter 4. Here the reader will find listed hundreds of positions with brief analyses of technical training required.

Chapter 5 describes present programs and facilities. This includes descriptions of technical and other training offered in some of our great vocational schools including the Essex County, New Jersey, vocational schools; Brooklyn's Technical High School; Cass Technical High School, Detroit; Lane Technical High School, Chicago, Ill.; Rindge Technical School, Cambridge, Mass.; Bayonne Technical High School, Bayonne, N. J.; Buffalo Technical High School; Mt. Pleasant Technical High School, Schenectady, N. Y.; Springfield Technical High School, Springfield, Mass.; William Hood Dunwoody Institute, Minneapolis, Minn.; David Ranken, Jr., School of Mechanical Trades, St. Louis, Mo.; Frank Wiggins Trade School, Los Angeles, Calif.

Chapter 6 offers suggestions for planning programs: How to make state and local surveys; how to determine plant and equipment needs and administrative arrangements. Guidance aspects also appear here.

Space permits only brief listing of the final chapter's 36 recommendations. Valuable explanatory paragraphs accompany each.

In "Vocational-Technical Training for Industrial Occupations" vocational educators will find a guidepost to postwar years.

Conclusions and Recommendations

1. The present situation in industry warrants a large expansion of vocational-technical training programs.

2. The occupations requiring vocational-technical training in large or small amounts appear to include four groups: engineering aides and science aides requiring a year or two of preemployment training; limited technicians requiring relatively short training; production and maintenance supervisors requiring industrial background plus supplementary technical training; and persons in semi-technical jobs which require combinations of technical and other training such as selling or accounting.

3. The occupational analyses developed in connection with this study reveal various levels of technical needs of workers, indicated by the range of technical content, amount and quality of underlying science and mathematics needed for the job, and the length of training required to attain competency.

4. Industrial surveys made in connection with this study indicate an average need of 5.2 technicians for each engineer, with a range of ratios from 2 to 1, to 20 to 1.

5. The geographical field in which vocational-technical training now finds a place of usefulness is widening.

6. Many different types of educational institutions and programs now provide training of vocational-technical character.

7. Although some excellent vocational-technical training is now being provided in technical high schools, a trend appears to be toward the post-high school years.

8. Institutions providing vocational-technical training should combine evening departments with day programs wherever this is feasible.

9. Evening and other part-time programs of supplementary type for employed workers should constitute an important part of the schools operated in urban areas for the training of technicians.

10. Organized preemployment curricula should be made available in evening or other part-time schools for qualified employed persons who wish to prepare for occupations of the technician types.

11. Combinations of vocational-technical programs with others, such as skilled trades or engineering training, under the same roof or on the same campus appear to have both assets and liabilities, when considering the effectiveness of the vocational-technical program.

12. It appears that no one type of institution can successfully meet all of the needs of all forms of vocational-technical education in all areas of the country.

13. The situation appears to warrant the continuation of high quality private institutions, both non-profit making and proprietary, in the vocational-technical field.

14. Correspondence instruction appears to have an important place in the field of vocational-technical training.

15. In the development of vocational-technical training programs, there are certain underlying principles which should be taken into consideration. Among these are:

a. Programs for given areas, state, district, or local, should be developed in accordance with the needs of the given area for both preemployment and supplementary training.

b. In planning and establishing vocational-technical training programs, the cooperation of both management and labor should be secured.

c. Programs should be developed through cooperative effort of all educational leadership concerned; undesirable duplication of services between institutions and agencies should be avoided.

d. State and local programs should be developed and maintained in those institutions which are in the best position to render the

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Fiber to Fabric is a development of a course of study in textiles that the author, an experienced merchandising man, initiated at the College of the City of New York in order to establish a methodology for teachers of textiles. Doctor Potter is also assistant professor of Retail Distribution, Long Island University (on leave), and Section Chief of Apparel of Region 2 of the Office of Price Administration.

In the gathering of the material for this text, he received the co-operation of leading textile experts.

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most effective service, taking into consideration the present facilities and the educational leadership of the area.

16. The local planning of vocational-technical programs, including representation of management and labor, appears to be the most desirable approach.

17. As the employer of the product of vocational-technical training institutions, industry has an important role in this field. Industry should share the responsibility for providing the narrowly specialized training needed by its workers and applicable only to its business. Industry should actively cooperate with vocational-technical training institutions in helping them to organize their programs on a sound basis, and to maintain them in keeping with changing industrial conditions.

18. The use of advisory committees is essential to careful program planning.

19. Preemployment vocational-technical training should be aimed at groups of closely-knit occupations rather than at narrow specialization.

20. Curriculum patterns differ greatly in various vocational-technical institutions, in accordance with local needs and conditions, and care may well be exercised in "lifting" curricula from other schools for use in new situations.

21. Certain content is found which is common to many different occupations of vocational-technical type; such as supervisory skills, basic technical mathematics, and basic applications of physical science. This should be taken into account in the planning of curricula.

22. The preemployment curriculum for vocational - technical training should have well planned proportions of vocational-technical content and essential content of general education character. Present practices indicate the desirability of fairly high proportions of vocational-technical content.

23. Young persons graduated from vocational-technical programs who are capable of doing advanced work should not be unduly handicapped when seeking admission to institutions of higher education.

24. Admission standards for vocational-technical schools should insure adequate preparation necessary for successful work, but should have as much flexibility as is practicable.

25. For schools of the technical institute type no widely accepted credential has been devised. This appears to be a problem of considerable importance for these schools, and one which merits attention.

26. Educational leadership is greatly needed in the field of vocational-technical training.

27. Teachers of vocational-technical subjects should be required to have adequate basic scientific and technical training, extensive industrial experience, a reasonable amount of appropriate teacher training and personality traits which meet the needs of teaching situations.

28. Effective programs of vocational-technical training require plant and equipment suited to technical training and in keeping with current industrial practice.

29. In the various war training programs numerous new methods and techniques have been developed which improve the efficiency of teaching. It is recommended that vocational-technical schools become familiar with these methods and techniques, and utilize, with necessary adaptations, those which have proved their worth.

30. There appears to be need for the development of instructional material particularly suited to vocational-technical training.

31. Effective guidance service with respect to vocational-technical training is needed in the feeder schools from which students enter this field of education.

32. In locations where the support of industry is conducive to such a program, the cooperative plan of half-time school alternating with half-time employment, in work to which the school program is related, is recommended for serious consideration.

33. Women appear to be finding an increasingly important place in certain occupations of vocational-technical character. Some war production occupations now open to women may be less so after the war.

34. In states where the program of vocational-technical training is sufficiently large to warrant it, special state supervision of this work is recommended.

35. Training of vocational-technical type appears to warrant a relatively important place in post-war retraining programs of vocational education.

36. Studies of vocational-technical training needs in such fields as business, agriculture, home economics, public service occupations, and certain semi-professions, similar to the present study in the industrial field, should be made as soon as practicable.

Their Workmanship

Bulletin 228 is the report of the consulting committee appointed by U. S. Commissioner of Education, J. W. Studebaker, March 2, 1943. Committee aides were James A. Waln, now training supervisor, Rehabilitation and Education Service, Veterans Administration, and W. A. Ross, consultant, public service occupations, U. S. Office of Education. Asterisks indicate members of working committee:

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Solomon Barkin, director of research, Textile Workers' Union of America, New York, N. Y.

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Howard Campion, assistant superintendent in charge of vocational education, Board of Education, Los Angeles, Calif.

Lt. Comdr. James R. Coxen, Shore Establishments Division, U. S. Navy Department, Washington, D. C.

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***L. J. Fletcher,** director of training, Caterpillar Tractor Co., Peoria, Ill.

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***A. C. Harper,** president, Wyomissing Polytechnic Institute, Wyomissing, Pa.

***L. S. Hawkins,** chief, Trade and Industrial Education Service, U. S. Office of Education, Washington, D. C.

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Arthur A. Hood, chairman of Producers' Council Committee on Postwar Marketing, and director of dealer relations, Johns-Manville Corporation, New York, N. Y.

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E. F. Riley, president, North Dakota State School of Science, Wahpeton, N. Dak.

***Robert H. Spahr,** administrative chairman, Division of Cooperative Training Programs, General Motors Institute, Flint, Mich.

***Jesse W. Stillman,** Dupont Experiment Station, Wilmington, Del.

***J. Raymond Walsh,** director of research, CIO Headquarters, Washington, D. C.

Robert J. Watt, International Representative, American Federation of Labor, Washington, D. C.

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Robert L. Cooley: Founder of the Milwaukee Vocational School and its director for nearly 30 years. Born on a farm near Milwaukee, he was a farmer, shopman, rural school teacher and later principal of a Milwaukee grade school. In 1912 he was appointed director of the Central Continuation School, later the Milwaukee Vocational School. AVA life member, Dr. Cooley served as president of the Association in 1927. An evaluation of his splendid contribution by Robert W. Trabell, First Vice-Principal, Milwaukee Vocational School, appeared in *Industrial Arts and Vocational Education* and later was issued as a reprint.

C. V. Williams: In charge of teacher training in agricultural education, Kansas State College, Manhattan, Kan. Long a leader in vocational education, Mr. Williams helped to organize the National Association of State Directors of Vocational Education and was its first president. He also assisted in the organization of the ten-year teacher trainers. After serving as special agent for the Federal Board for Vocational Education and Kansas director of vocational education, he came to Kansas State College in 1922. He made an important contribution to the cause of vocational education through his sound counsel in shaping policies during the formative years.

August Noah May: Professor of industrial education, University of Kentucky. He had the longest period of service to vocational education of any person in Kentucky having begun his work at Berea College in 1904. He was one of the earliest advocates of the area trade school.

James H. Maurer: Former president, Pennsylvania Federation of Labor, and steadfast friend of vocational education. Twice vice presidential candidate on the Socialist ticket, he was known as "father of compensation" and "father of old age pensions" in Pennsylvania.

Joseph C. Behre: Charter member of the Delgado Trade School. He was on the staff from 1921 until the time of his death, Dec. 7.

Helen Morris Stimson: Wife of Rufus W. Stimson, leader for many years in vocational agricultural education and co-editor of the History of Agricultural Education recently issued by the U. S. Office of Education.

W. H. Dooley: Principal of the Straubenmuller Textile High School, New York City, since 1921. He was author of many texts on textile and vocational subjects.

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Customers After V-Day

RICHMOND LAUNDRIES WANT THEM SO THEY TURN TO DISTRIBUTIVE EDUCATION FOR HELP

MANY business concerns are worrying about their post-war reputations with the public. They fear that shortcomings of wartime emergency workers may be held against them. To prepare now for peacetime competition, some industries are calling on vocational education to train their employees to handle customers with courtesy and efficiency.

One notable example appears in the record of service to Richmond, Va., laundries by distributive education. The first service supplied by distributive education for the training of laundry and dry cleaning personnel during the war came about as a result of a need expressed by the Virginia State Laundry and Dry Cleaners Association as early as December, 1943, in Richmond, Va.

Laundry and dry cleaning establishments have not met with the success of the retail stores in making customers realize the limitations under which they operate during the war period. The average customer, who may cheerfully carry her large purchase home on public transportation or accept substitutes of questionable value, still expects cleaning establishments to call for and deliver her laundry on a dictated schedule and to maintain the usual high standard of work.

This intolerance may be due to the fact that launderers and dry cleaners have not advertised their plight to the public, or simply because the customer cannot see the problems of this industry as well as she can see the problems of the stores in which she shops.

Regardless of the reason, managers in the textile maintenance field are confronted with the problem of keeping the customers satisfied well enough during the war so that they will be able to meet the competition of post-war gadgets which promise to handle the customer's laundry at the push of a button.

The laundry and dry cleaning company owners and managers are conscious of the competition they will meet. Many of them believe training is the solution to this problem.

Determining the Problems

Robert Crawford, president of the Virginia Association, last December asked Miss Bernard, state supervisor of distributive education, to help his association work out a training program for those employees who contact customers. Two conferences of managers of laundry and dry cleaning companies were called by Mr. Crawford to meet the distributive education staff in Richmond. At these meetings the managers of the industry listed their problems. Most outstanding were:

1. Securing and maintaining an adequate staff.
2. Keeping informed on government regulations.
3. Shortage of supplies.
4. Breakdown in equipment causing delays in work.
5. Increased volume of work with the same equipment and unskilled workers.
6. Delivery limitations.
7. Maintaining good will of customers in the face of increasing complaints and adjustments.
8. Higher percentage of claims to be paid.

Working out a practical course to meet these problems, however, required further study and research.

Study and Research

The writer, who is supervisor of the Richmond Retail Institute, and the distributive education staff in Richmond, then began a study of the types of errors made by laundry and dry cleaning employees and the causes of complaints. This study entailed trips through laundry and dry cleaning companies, listening to complaints on the telephone, and working with and interviewing employees and supervisors who came in contact with the customers.

Managers, who were members of Mr. Crawford's committee, were of immeasurable help in discussing their problems with the distributive education staff and in getting employees to tabulate complaints by types. They also supplied trade publications and available training materials for staff members to study.

By ROSEMARY McMILLAN

The Training Course

A series of ten lessons for employees who contact customers was prepared by the distributive education staff. Lillie Burns Carmines, one of the instructors on the Retail Institute staff, taught the lessons to a small group of laundry and dry cleaning employees.

Classes met in the School of Store Service, Richmond Professional Institute conference room, from 8:30 to 9:30 each morning for two weeks. This first class was composed of nine employees from six different organizations.

Topics for the meetings were: (1) Changes brought about by the war; (2) Problems facing management; (3) Public relations in laundry and dry cleaning; (4) Steps in handling customer complaints; (5) Techniques in handling telephone customers.

Charts and diagrams, illustrated mimeographed folders and movies added interest. Staff members and class group members gave demonstrations. All directed discussions were informal. Throughout the course, Mrs. Carmines made revisions on the lesson plans to fit the needs. Class members were most enthusiastic. At the last meeting, Mr. Crawford, who gave out the certificates, and the committee members added prestige to the training by congratulating the members on their attainment.

A similar class was held in Farmville, Va., with distributive education division assistance. A second class in Richmond has just been completed and it, too, was most successful.

At the request of the New Jersey Laundry and Dry Cleaning Association, the distributive education staff in Richmond has trained a New Jersey member to teach the laundry and dry cleaning course and has supplied lesson plans.

The Richmond distributive education staff is now looking forward to the development of a long term training program for customer-contact employees in this important service field. Under such a program, employees may work toward a diploma by completing eight related training courses in their field.

Who Will Do This Job?

(Concluded from page 11)

Some industrial organizations have recognized the value of employee activities "off the job" and have found that money spent for the education and recreation of employees returns good dividends.

Three Obligations

Commercial organizations, too, have capitalized upon workers' interest in outlets which the job does not provide, and, as a result, skating rinks, bowling alleys, and dance halls have been developed on the fringe of industrial communities. These provide some health outlets.

Schools in the reconstruction period will have the same general responsibilities which they have now, but they will have to modify practices and objectives to meet postwar conditions. The secondary schools now have three main objectives:

First, to prepare youth to enter college, a job they do with great efficiency and to a much greater degree than is justified by the number of graduates who actually enter college.

Second, the secondary schools also give pre-employment training for occupational life. This also will be a responsibility in the reconstruction period, but to a lesser degree than at present. Since farm occupations are not subject to the rigid employment regulations pre-employment responsibilities in vocational agriculture will be no less than they are at present. But pre-employment programs in the trade and industrial, commercial and distributive fields will be almost entirely on the post-high school level.

Third, and greatest responsibility of the schools in the future will be preparation for more effective living in the home and the community.

Credit Where It Is Due

This third general responsibility will require the greatest modification of existing practices. I recognize there must be some method for evaluating and accrediting the accomplishments in the secondary schools, but the credit system now in effect does not encourage the choice of subjects that will assist in meeting social changes. The kind of credits earned by some youth are not cashable anywhere except for college entrance. The employer, in selecting youth, is not concerned with the credit system of the high school, and some functioning types of activities are prevented because the credits earned in such activities are of less value than those which can be acquired in other courses. Home economics and industrial arts activities are penalized because someone has decided they do not require preparation outside the course. This practice of evaluating credits disregards the preparation and study involved in getting a meal, in making a dress, the preparation of the family budget, and all the activities necessary for good family life. There are some real problems for school administrators in the rearrangement of the secondary school credit system and the credit system must be one that gives credit where credit is due.

The schools are closely involved in anything that affects the future of the citizens of the nation, and it is not too soon for the schools of the nation to begin to expand plans for more effective participation in these problems of the postwar era. The home economics departments in particular can aid in the problems which are ahead, and it will require the finest kind of teaching to achieve the results necessary.

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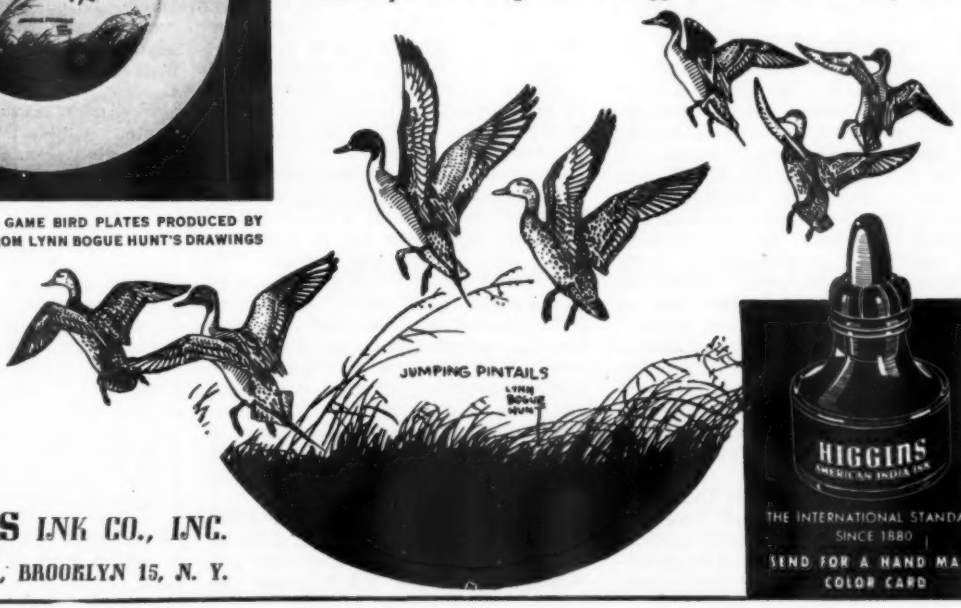

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NEWS rehabilitation

By O. I. Paulson

VOCATIONAL rehabilitation news has come in from nine states. Readjustments to carry out provisions of PL 113, clinics, staff replacements and expansions dominate the current reports.

Vermont's TB Program: Vermont is carrying on an experimental project in occupational therapy at the State Tuberculosis Sanatorium, Pittsford, Vt. As far as we know, this is the only United States program the cost of which is being defrayed by a combination of state, private and federal money. The Vermont Tuberculosis Association, State Department of Welfare and State Department of Education have entered into an agreement whereby funds deposited by the Vermont Tuberculosis Association will be matched with state and federal funds.

An occupational therapist is conducting a complete occupational therapy program. Facilities for shop work are being made available to patients as well as academic and commercial courses. These latter courses are a part of the over-all occupational therapy program; all subjects are under the occupational therapist's general supervision. Part time teachers for academic courses, shop work, and commercial subjects are employed; and separate quarters have been made available through building alterations.

Purpose of the program is to develop work habits and work tolerance of patients. When discharged as arrested cases they will be more susceptible to regular vocational rehabilitation.

Pennsylvania's New Plan: The new State Plan provides for expansion of service to disabled to include a well-rounded program of guidance, physical restoration, training, employment and follow-up. Physical restoration is a new service under PL 113. It will include medical care, hospitalization, surgery, prostheses, occupational and physical therapy, pre-conditioning and psychiatric treatment.

Plans are under way to increase Bureau personnel four-fold (about 150 additional persons) and expand service to reach 30,000 disabled people annually. The program will be in full swing by July so that a complete service will be available to disabled veterans not eligible for vocational rehabilitation under the Veterans' Administration.

Alabama's Many Fronts: The Vocational Rehabilitation staff has expanded to 14 workers with district offices located in 5 centers. Two scheduled employment clinics have been held in cooperation with the Civil Service Commission. This led to placement of a great number of physically impaired people in shipyards, airplane plants and various other types of employment. As a result of excellent cooperation with the selective service, the American Red Cross, the Crippled Children Service and various other referral agencies, 2300 people were rehabilitated last year; 1945 prospect, 2500.

A well defined plan for physical restoration has been developed and is already working. Hospital centers have been set up where facilities already existed; others are to be designated. Cooperation by physicians and surgeons has been notable. An agent has been placed in charge of Alabama's blind rehabilitation program. In addition to the training and placement of blind workers at Brookley Field, Mobile, establishment of stands and other types of employment, a survey is being made to develop job opportunities for this group during reconversion.

California Asks Fund Increase: The Bureau plans to expand its staff and service under PL 113. At the coming legislative session a bill will be submitted to increase State appropriations from $180,000 to $300,000.

Plans also include addition of 24 members on the rehabilitation staff, including supervisors for the blind, the severely disabled, and 22 rehabilitation training officers.

Special attention is being given to services for the blind. Present plans include two additional rehabilitation training officers. This will raise the total to five. Other staff members will continue to aid, but it is felt that five specialists will be needed to give direction to the program for maximum results.

Indiana Training Session: Two more field agents have been added for case work. Serious illness caused Slater Bartlow, supervisor for 14 years, to leave the work last August. The Evansville District has lost the services of C. N. Williams because of failing health. W. L. Surface, Seymour District, resigned to go into insurance work. Changes and additions have made it necessary to give immediate attention to staff training. The entire force will receive a week of special training beginning January 8. Donald Dablestein of the Washington Office has been asked to assist.

Kansas Goes Ahead: As late as 1939, Kansas enjoyed the somewhat dubious distinction of being the only state not cooperating in the federal-state rehabilitation program. Through the efforts of C. M. Miller, director of vocational education, the Kansas vocational rehabilitation program was started in July, 1940. Until 1942 the program operated on an experimental basis with a one-man staff. Passage of the Barden-LaFollette Bill enabled the State Board to expand the service. Kansas now boasts six district offices, located in convenient geographical centers, each served by an office secretary and vocational rehabilitation counselor.

Physical restoration aspects of the program are developing nicely under the watchful eye of a professional advisory committee, appointed for the Board by the Kansas Medical Society. This committee has already had one meeting, which resulted in the appointment of Dr. Rombold, an outstanding Mid-Western orthopedist, as Medical Administrative Consultant for the State Board.

Arrangements have also been made with the famed Menninger Clinic for psychiatric and psychological examination of persons referred to the division.

Arizona Notes: Roy E. Tubbs of Phoenix has been appointed specialist in physical restoration. Mr. Tubbs, a registered nurse, has had many years of experience in a medical setting. The physical restoration program will soon be in effective operation throughout Arizona.

Due to the expansion of the vocational rehabilitation program in Arizona, Charles F. Orvis, rehabilitation agent, who has been with the State Vocational Rehabilitation Division since June, 1943, will be placed in charge of a new district office opened at Tucson, to take care of the southern part of Arizona.

Missouri Names Doctor Consultants: As medical consultants for the physical restoration program, Missouri has employed three doctors: Dr. David Enloe, Jefferson City, in the central part of the State; Dr. Herbert L. Mantz, who resides in Kansas City, in the extreme west; and Dr. Edward G. Massie of St. Louis, on the extreme east. Dr. Herbert L. Mantz, named Chief Medical Consultant, gives eight hours of time per week to the program; the others give four hours each, per week.

South Dakota's 10 Clinics: A series of clinics for the physically disabled have been conducted throughout the State. Clinics are publicized through several coordinating agencies, including the Red Cross, U. S. Employment Service, Social Security Department, Veterans' organizations, Division of Crippled Children, public health nurses, city and county superintendents. They have been held in Mitchell, Aberdeen, Sioux Falls, Rapid City, Lead, Belle Fourche, Hot Springs, Huron, Watertown and Yankton.

Clinics are open to any physically handicapped person 16 years of age or older who is a resident of the state.

Industrial Arts News

By E. E. Ericson

The Wisconsin Industrial Arts Association Curriculum Committee which has been active for several years under the chairmanship of Clyde A. Bowman, dean, division of industrial education, the Stout Institute, has announced outlines for a new bulletin under the title of *Modern Industrial Arts.*

The first bulletin produced by this committee included the results of statewide studies on existing situations and practices. The second bulletin, *Source Material Guides for Course of Study Planning in Drawing,* was based on extensive findings recorded in the first bulletin and was planned as the first of a series of "Source Material Guides."

Instead of following up with additional bulletins of a similar type, the Association in its October 21 meeting decided that a bulletin under the title *Modern Industrial Arts* would serve a larger purpose in the educational field at this time.

At present there are 12 members on the Curriculum Committee.

New Appointments: Virgil Volla, supervisor of industrial arts, Los Angeles City Schools, has been elected president of the California Industrial Education Association for the coming year beginning January 1. Ray Messinger of Bakersfield and Walter Thatcher of San Diego are the two vice presidents, while David F. Jackey, supervisor of vocational teacher training at the University of California at Los Angeles, is secretary-treasurer.

An issue of the magazine, *California Notes,* is in the process of being published. The annual spring conference of this association will be held in San Diego at a date not yet named.

Elmer A. Mueller, industrial arts instructor at Virginia, Minn., has been elected president of the Minnesota State Teachers Association. Industrial arts teachers of Minnesota met in conjunction with the State Teachers Association in St. Paul recently. Ernest J. Simon, Illinois Director of Vocational Education, was guest speaker at the Industrial Arts luncheon.

From Kansas comes information that Harry W. McKimmey of High School East, Wichita, was elected president of the Kansas Industrial Arts Association for the coming year, William F. Currier, director of industrial education, Coffeyville, was elected vice president while the present secretary-treasurer, Charles Henderson of Wichita, was re-elected.

Leroy Brewington, supervisor of printing at Kansas State Teachers College, Pittsburg, has been re-elected editor of the magazine, *Printing Education,* official monthly journal for the National Association for Printing Education, and has also been elected a member of the board of directors for a period of three years.

Prof. Arthur B. Mays, University of Illinois, was the honored guest and speaker at the Kansas State Teachers College dinner meeting in Pittsburg on November 1. A neatly printed folder used in connection with the invitation pays fitting tribute to his work and writings. William T. Bawden presided as toastmaster and the program included a roundtable discussion on the topic "trends in industrial arts" as presented by the speaker.

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Three who went to look at vocational schools: J. C. Woodin, director, vocational education, P. W. Harnly, principal, East High School, both representing the Wichita, Kansas Board of Education, and Laurence Parker, state supervisor, trade and industrial education.

Vocational Schools

(Continued from page 9)

and air to every room. Most of the shops are 40 by 60 feet with outside light on three sides. In this school with its working models of equipment, its organized instructional material, and its splendid layout, we get an excellent glimpse into the future, and dimly see what vocational schools will be like in years to come.

Washburne Trade School. Now located in what was formerly Lane Technical High School, this school has also expanded across the street into a large annex. The director, Martin Braun, Jr., was our guide. Washburne's program includes unit trade courses for both boys and girls, commercial courses, apprenticeship training, as well as a large number of part-time classes both trade extension and general continuation. A school so organized becomes an educational headquarters for many thousands of the workers of Chicago. All the short setups deserve mention. We were particularly impressed with machine shop, printing, commercial art, auto mechanics and business education.

Boys and girls attending Washburne full time manage to become advanced apprentices at the trade without being denied athletics, music and many other offerings of the city high schools. Each girl has an opportunity for practical homemaking instruction.

The school is equipped to provide a great variety of training for office occupations. At present the facilities are used for refresher courses for the wives of service men and former commercial workers wishing to take civil service examinations.

Superintendent William H. Johnson, Mr. McNamee and his staff are especially proud of the apprenticeship program. It has a record of 25 years of successful experience. These years are the acid test.

The laboratory fitted up for the related instruction of steam fitting apprentices illustrated vividly what can be done when the right instructor gets the cooperation that he should have from an industry.

Buffalo

We spent the major part of one day at Burgard Vocational School where our old friend, W. B. Kamprath, is principal. Although it was our second visit, we still couldn't get used to the idea of every floor being connected with the street by means of ramps so that trucks, cars and fuselages of planes may be rolled in from the street up to the proper floor and into the proper classroom. Offerings throughout the school are in line with local community needs. Much equipment has been donated by the industries. A shop has just been completed for the teaching of care and maintenance of Diesel engines. Arrangements are being completed to train railroad locomotive engineers in the use of Diesel power units.

Seneca Vocational School. This school owns a complete broadcasting station which until recently was on the air as a commercial station. Richard Reagan, principal, showed us the very fine radio shop, laboratories and electrical shops. The latter emphasize electric motor installation and maintenance important to Buffalo industries.

Newark, New Jersey

Essex County Vocational and Technical High School for Young Women. On at least one other occasion we have visited this school of which Clara Krauter is principal. It is one of four associated vocational schools under the supervision of Ronald W. Kent. Like the Miller Vocational High School in Minneapolis, this school has an atmosphere about it. Courses which deserve special mention are: commercial art, power sewing, technical secretarial, practical nursing and business courses. Calendar and greeting card companies cooperate with the commercial art department.

We found a teacher of shorthand who was preparing on a transcribing machine a series of phonograph discs at various speeds of dictation to be used to supplement the text studied by the girls. In the English department, we saw a demonstration of the machine used for improvement in reading. A young woman read a selection from a book in front of the microphone. On the play back she heard the way her reading sounded to those present in the class. These were just two evidences that this schoool is alert.

Essex County Vocational and Technical High School for Young Men. Rudolph Skrivanek, the principal, showed us the various shops and explained their features. Especially interesting to us were: printing, photography, auto mechanics, machine shop and commercial art.

In the large and very complete print shop, only equipment accepted in the Newark area is used. Not what the principal thinks, instructor prefers, or the salesman tries to sell, but the type of shops which the boy will go to when he finishes his training determines the equipment installed. The auto mechanics shop is as well arranged as the most high-class, one-stop service station.

Philadelphia

Bok Vocational School. This very fine eight-story school is similar in plan to the Dobbins Vocational School in another part of the city. Robert Crewsen is principal. Day class enrollment at this time is 1558. There is a very fine cafeteria in this school. Noon movies show at the admission price of a penny. Boys and girls dance during the noon hour in the girls' gym. Practical nursing is taught in connection with a day nursery for pre-school age children. Exceptional offerings were: photography, with much work in process, watch and clock repair, tea room, upholstery for boys, drapery shop for girls, sheet metal shop for Navy training and arc welding.

At last we have seen a shop for training in plastics. Bok has the necessary presses for making plastic objects and small equipment with which to shape and finish articles from sheet plastic. The room was equipped with engraving ma-

chines which enable the students to do fine lettering on plastics or metals. Dobbins School, we were told, has two features which we had not seen at Bok; a very extensive radio laboratory, and a combination grocery and meat market used in connection with meat cutting and the sale of meat and groceries. Those in training cut up the day's supply of meat; faculty and students are the customers.

Camden, N. J.

Camden County Vocational School. Joseph M. Hall is principal of this school on Camden's outskirts. Here we saw shop arrangements similar to the Chicago South Side Vocational School, but larger, 60 by 90 feet. Aircraft maintenance, the printing department and radio shops impressed us. The latter places many graduates with nearby RCA.

Muncie, Indiana

P. W. Harnly made a side trip to Muncie, Ind., to visit the Muncie Trade School. Although part of the regular high school, it is 12 blocks from the main building. The Board of Education bought an old building, and vocational students themselves rebuilt it into a very acceptable shop building. These same boys have been doing electrical and carpenter work throughout the school system. The shop building is largely open area with some classrooms to be used for demonstration and related subjects purposes. Of 1500 boys enrolled in high school, 400 are in vocational classes which speaks well for the popularity of vocational work.

Cincinnati, Ohio

The Cincinnati vocational work, specialized in various schools, is under John F. Arundel's direction.

Central Vocational School. Here, under Principal Ray F. Kuns, automotive and aircraft training centers.

Graphic Arts and Printing School. This four-story building is approximately 250 by 100 feet. On whole open area floors will be found lithography, linotype, offset presses, groups of automatic presses, folding machines and monotypes.

East Vocational High School. This school which includes vocational courses for girls has Mrs. Late as principal. Needle trades occupy this building. We saw power sewing machine classes making men's shorts for a local store. The store could purchase the material, but could not buy the finished garments. The girls had blocked the patterns for these garments.

St. Louis

Hadley Technical High School. F. M. Jeffrey is principal of this school where beauty trades have been given special attention as well as power sewing and business education. A mythical corporation which does a tremendous business each day, requiring much office work, supplies office practice training. There are rooms devoted to business machines, duplicating equipment, comptometers and other business machines.

Our visits were hurried. Space does not permit recording all we saw. We realize that the schools visited are only a few of many excellent schools offering the very best in vocational education. We also realize that our descriptions only tell what we considered to be high spots. Probably readers have many questions we failed to answer. More information on any program that interests you can be obtained by writing to the schools listed.

We came back from our tour convinced that vocational education is a big business in this country and the all-day vocational instruction an important part of this business.

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Guidance NEWS

By George E. Hutcherson

ALTHOUGH only 50 were expected, actually 105 Wisconsin educators ranging from counselors and coordinators to principals and teachers registered for a guidance training conference under the supervision of John I. Kubiak, state supervisor of occupational information and guidance, at the Milwaukee School of Vocational and Adult Education. This training conference grew out of an earlier training conference for city directors of vocational schools held in Milwaukee on September 25-27.

New York Guidance Workers

County supervisors of guidance and itinerant counselors in cooperative programs met in a conference called by the Guidance Bureau, New York State Educational Department at Syracuse, New York, December 1 and 2. Among the topics considered was the ninth and twelfth-year social studies unit. Substitution of some worthwhile instruction relating to guidance for the career book technique was recommended. The counselor, it was agreed, is the person best prepared to give group teaching related to guidance.

Counselors urged organization of a program to function with other community groups dealing with educational and vocational counseling of veterans and recommended that where no other referral facilities were available the service should be given by the school.

Questions about the County Vocational Education and Extension Board were widely discussed by conference members including the possibilities and advantages of offering guidance services on a county-wide basis. Several persons attending represented areas sponsoring cooperative programs without the use of the County Vocational Board. Other counties, it became apparent, could well expand their services.

Work of the several federal, state and local groups that are organized to aid the returning veterans, both men and women, were evaluated. Discussion centered around the necessity of maintaining counseling service on a 12 month basis and at irregular hours including evenings and Saturdays so as to make available this valuable service to persons who could not meet with the counselors during the regular school hours and seasons.

New York City Guidance Officers

The Annual Conference of City Supervisors of Vocational Guidance met at the Central Needle Trades School, New York City, Nov. 13-17, with 20 in attendance.

Lt. Hugh M. Bell, Army Separation Counseling Service, stated that over 53 per cent of men being discharged from the Army did not wish to return to their old jobs; 12 per cent did not wish to resume their studies.

In considering conversion tables, Lt. Bell spoke of the multiplicity of Army jobs that some men have held—one soldier held 23 jobs. He described the difficulties of finding civilian jobs for men who have been in such Army jobs as sharpshooter, bugler, or bombardier. The basis of conversion, he said, was: (1) How long the soldier had held the job in the Army, (2) the degree of skill he had developed, (3) the degree of interest he had shown in the work, (4) the usefulness of his skill in civilian reconstruction. Discharged men now receive counseling service in 17 Army separation centers and in many general hospitals. The veteran, about to be discharged, is returned to a center near his home. At the separation center he receives a transcript of his Army career (Form 100); counseling on vocational education problems, *if he so desires;* advice on his legal rights to obtain his old position, if he wants it, and accurate referrals.

Navy Redistribution Centers were described by Comdr. Ralph Sentman, U.S.N. (Ret.). Each naval district has a trained civil readjustment officer cognizant of rights of veterans. For each veteran there is an exit interview at which he receives his discharge, a report of separation, a description in lay language of the highest rating he has held in the Navy, and a booklet on his rights and benefits and those of his dependents including such matters as education, disability benefits, getting a government job under Civil Service, etc.

Evelyn Murray, United States Employment Service, discussed with the group a plan of cooperation between United States Employment Service and the schools noting that many schools are visited once a year, that talks are given to graduating classes and that school and factory personnel are interviewed. A counseling approach is used with all pupils. School charts analysing jobs that young people in a community are securing are used to show job trends. The Employment Service, she said, looks on counseling and job placement as a mutual responsibility of a community and the United States Employment Service.

Harry Jager, Chief, Occupational Information and Guidance Service, U. S. Office of Education, directed attention toward the cooperative program between the United States Employment Service and the New York Public Schools. Mr. Jager spoke briefly about hazardous occupations, their legal restrictions and on the subject of legal working ages.

30,000,000 people, he said, have been affected directly or indirectly by war dislocations; 3,500,000 under 20 have left school to go to work. He considered the school problem to date to center around the 18 to 20 year old youth.

Two counselors visited Camp Dix, New Jersey, where veterans were being discharged. A random sampling of over 1,000 discharges showed that 46 per cent wanted to return to former jobs; 35 per cent had no jobs to which to return; 12 per cent had been referred to the United States Employment Service, and 7 per cent to the Veterans Administration. Officers and men were processed separately.

Of veterans being discharged 3 per cent wanted interviewing only and 9 per cent counseling; 25 per cent of discharges wanted vocational counseling and 11 per cent educational counseling; 31 per cent counseling or advice on insurance policies; 11 per cent wished financial problems discussed and 21 per cent consideration of personal problems. On an educational level 2 per cent had had 17 years of formal education; 10 per cent, 13 to 16 years; 39 per cent, 9 to 12 years; and 49 per cent, 0 to 8 years.

Kansas Guidance Services

Results of a Kansas guidance service survey come to us from W. T. Markham, state supervisor, Occupational Information and Guidance.

Of 400 Kansas high schools recently surveyed, 91 have an organized guidance program; 59 others are organizing such programs.

In the 91 high schools, 37 counselors in 31 schools have definite assignments, ranging from one period per day to a full-time program. In these 31 high schools the counselor in charge has no other administrative duties; however, 533 other teachers have assignments as assistants in guidance.

In the other 60 schools with guidance programs, the principal or superintendent supervises the program aided by 202 teachers who are given guidance responsibilities.

Of the 91 high schools, 77 offer "Occupations" courses. In some instances the counselor teaches the classes, in others another teacher. These high schools provide 86 periods per day for individual counseling; 69 periods per day for so-called group guidance; 62 periods for teaching "Occupations" during the present semester.

Sixty-five schools have occupational files; a few others are making them.

Here and There . . . . with vocational educators

Advisory Board Hears Report

At the January 17 meeting of the Federal Advisory Board for vocational education, Clarence E. Rakestraw gave a progress report on the work of the Vocational Division's Committee to Study Postwar Problems in Vocational Education. Mr. Rakestraw is vice chairman of the committee headed by M. Reed Bass, director, David Ranken, Jr. School of Mechanical Trades, St. Louis, Mo. Other members are F. G. Cornell, W. A. Ross, Harry A. Jager, Ata Lee, B. Frank Kyker, Allen T. Hamilton, and Herbert B. Swanson, all of the Office of Education.

For Better Design

In Massachusetts the newly organized statewide handicraft committee asked that measures be taken to improve the quality of designs in craft work taught in the schools. With this injunction in mind two steps were taken. On ten successive Monday evenings, the State Vocational Division offered at the Boston Teachers College a course in fundamental design. At the Fitchburg State Teachers College four teacher training courses for volunteers are being offered. These courses are especially prepared to train those who will teach leathercraft, stencilling, block printing or silk screening at Lovell General Hospital, Fort Devens, and in the American Red Cross Arts and Skills program. Frank Allen, vocational art education supervisor, opened the series with a discussion of "Fundamental Design."

Regional Schools in Virginia

B. H. Van Oot, director of vocational education in Virginia, writes that the Governor's Advisory Committee on Education has recommended the establishment of five regional schools or technical institutes and a general expansion of the day trade program throughout the state as well as an expanded program of part-time and evening school work.

Six separate high schools are sending boys and girls to the Abingdon, Virginia, regional school for vocational instruction. Those desiring employment after one term of instruction are enrolled in war production training courses, while the your students are placed in trade and industrial courses of their choosing.

The Manassas State Vocational School opened on September 25 with 106 students; 91 boys, 15 girls. These students come from 16 different high schools.

World Education Conference Planned

The National Education Association announces that a world conference of the education profession is being planned to be held in this country following victory over Germany. Questions tentatively scheduled for the two weeks conference are:

In what way can the educational profession in all lands cooperate in promoting the conditions necessary for a lasting peace?

What international relationships within the educational profession will bring about the most effective restoration of educational services in the areas most seriously damaged by the war?

Upon what educational problems and policies may international cooperation within the teaching profession be most useful and what kind of organization, if any, is needed to facilitate such cooperation?

"This will be a conference of teachers," says Willard E. Givens, executive secretary, "and they are urged to send us suggestions for topics to be considered, as well as suggestions for the procedure of the conference."

To Develop Convalescent Training

Major Ralph C. Wenrich has received a new assignment as chief, Convalescent Training Program. Camp Carson Convalescent Hospital, Colorado Springs, Colo. He is searching Army files and teacher college records in the process of securing 50 shop teachers. Extensive, well-equipped shops will be established. Instruction offered to some 2,000 patients will embrace a wide range of pre-vocational subjects including agriculture. Development of training programs of this kind for ambulatory patients is being strongly pushed by the War Department.

High Points in Chattanooga

Kirkman Vocational High School, Chattanooga, Tenn., reports: Army salvage material — airplane, airplane instruments, engines, trucks and truck parts, valued at $85,000 have been acquired from the Army Quartermaster for pre-induction training; short unit courses for adult homemakers, including classes in sewing, slip covers, first aid, and food preparation have proved to be most popular; 56 placements on jobs in an eight month period is the record of the commercial subjects department; shops in aircraft sheet metal and riveting, welding, and machine shops are being operated at the Silverdale Isolation Hospital for the benefit of the girls sent there for treatment for venereal diseases; classes in the fundamentals of topographical drawing or map-making, offered in day and night classes enabled TVA to carry on its vast map-making project with a minimum of preliminary training.

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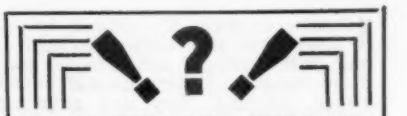

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NEWS home economics

By LETITIA WALSH

HOME economists are looking to the future, not with fear and confusion, but with energy and imagination. From the great testing ground in the armed services, they are adapting ideas on effective teaching methods and materials. Problems which have defied solution for years are now being set up for long-time, cooperative study.

A question often asked is why do adults take the time to learn. Some do it to save money, as in the furniture reconditioning and home mechanics courses so popular in Florida. Some to make money, as in the case of the Tennessee youth who learned how to build up a business of selling boxwood plants.

Others enjoy canning food for overseas consumption, courses for which have been set up in Georgia. "Kitchen Efficiency" meetings throughout Vermont interested adults in the time and motion saving demonstrated by Agnes Shaw, special assistant state supervisor. Men and women in Omaha and Lincoln, Nebr. can always obtain aid from consultants at the Adult Homemaking Centers. These are in new, downtown locations furnished with NYA equipment.

Even the bedridden patients in a tuberculosis sanitarium at Lansing, Mich. are enjoying instruction in home furnishing.

Two cooperative studies now in progress are of particular interest. The Connecticut Home Economics Association is cooperating with the state and national housing agencies on a study of three housing problems: living space for small children, laundry space and equipment, and hobbies for families. The California Homemaking Department is participating in an experimental program in farm and farm-family living in cooperation with the State Department of Agriculture and the U. S. Office of Education. Three high schools, located at Tulare, Live Oak and Elk Grove, are developing plans for a long-time program in farm and farm-family living.

A close tie-up with reality appears in all recent conferences. Many states like Tennessee and Missouri are teaching teachers meat cutting and processing in district conferences. At other meetings in Missouri, Wisconsin and South Dakota, teachers worked on the problems of adjusting the curriculum, organizing the department for an effective program, and developing leadership through student organizations.

Four innovations in state conferences are reported:

New Mexico organized a "Panorama of the Homemaking Teacher in the Community" through which about twenty teachers presented their participation in activities outside the classroom. And each idea was different!

Oregon featured the demonstration of teaching activities, with homemaking teachers skillfully assuming the roles of teacher and students.

In North Dakota eight workshops were conducted as part of the state conference; one of the most interesting was concerned with visual aids and projectors.

Kansas, also, provided work experiences in a short course, with some time each day devoted to home mechanics, furniture reconditioning, illustrative materials, and home projects. Later the results of the week's work were used in the preparation of a home science course at the state conference.

Publications for Tomorrow

Curriculum units and other instructional aids, cooperatively developed and experimentally used, are appearing in all parts of the country. The Michigan State Bulletin No. 100, *Homemaking Put to Work*, is the result of group thinking not only of homemaking teachers but also of leaders in consumer education, guidance and parent education.

The Illinois state nutrition committee is distributing a *Suggestive Guide for Teaching Nutrition in Elementary Schools*. This booklet is distributed through the Women's Division, Illinois War Council, 188 W. Randolph, Chicago.

Front Line Changes

Louise Stedman of Ohio has been appointed assistant state supervisor and itinerant teacher trainer at the University of Maine. The Bureau of Homemaking Education in California has appointed Mary Frances Inman, formerly at the University of Minnesota, as regional supervisor with headquarters at Chico State College. Margaret McEniry has returned to South Dakota as state supervisor of homemaking education. At North Dakota Agricultural College, Mary Rankin is now assistant teacher trainer.

In New York the two vacancies in the State Bureau of Home Economics Education have been filled by Nellie Buckey, who was formerly at Peabody College, and by Thelma Thorne from the State Department of Washington. Miss Thorne is specializing in curriculum and will assist with the state curriculum revision program.

At Oklahoma A & M College, Ilsa Wolf of Texas has replaced Gladys Stone, who resigned to become a homemaker. To the Oklahoma State staff have come Martha Graves from California and Clarice Watson from Oklahoma A & M College. Hazel Frost of the same staff has been granted a year's leave of absence to serve as national advisor of high school home economics student clubs.

In Georgia, Shelby Mitchan of Texas has been added to the teacher training staff at the State College for Women, while Lillian Schmidt has left a similar position at the University of Georgia to become assistant state supervisor in Nebraska. Rhea Keeler, former assistant state supervisor in Nebraska, has accepted the position at the University previously held by Rowan Elliff. Miss Elliff is now teacher trainer at Arizona State College at Tempe.

Florence Blazier, head teacher trainer at Oregon State College, is on sabbatical leave during the present school year. May DuBois, assistant teacher trainer, is acting head. May Van Deusen, supervising teacher at Corvallis High School, is now acting as itinerant adult teacher in Oregon, while Gertrude Roskie has left the state department to become assistant state supervisor and head teacher trainer at Montana State College.

In Highland Park, Michigan, the Home economics department finds hospitality in the home a war morale builder. Instructor, Mae Lennan.

Examine Every Proposal

(Concluded from page 19)

The standard toward which we must make progress is that health is not only an individual responsibility but also a social concern and that medical care in its broadest sense must be available to all families regardless of race, location or economic status."

Consumer Education

"For some families there have been marked increases in income during the war—for others incomes have remained the same or have been lowered. During reconversion the economic picture will change again. Wartime saving and spending practices may carry over into peacetime; many families will have to spend less; budgets will have to absorb periods of no income because of transitional unemployment; and some families will go on reckless spending sprees. Welfare of families points to the need for education that encourages continuing savings programs until the supply of civilian goods has increased enough to prevent unreasonable price rises.

"Education should help all consumers understand the relation between their management of buying and the market. The experience following the last war and information about the supply and quality of consumer goods indicate the need for continuation during reconversion of price control, rationing of scarce products and assignment of raw materials for essential consumer goods. It will take education amounting to crusading to keep consumers cooperating wholeheartedly in these plans for control of inflation once the war is over and to protect them from buying inferior products.

"There can be no justification for withholding specific information about the quality and characteristics of consumer goods from buyers when the government itself can buy according to specifications. A system of labelling goods that is fair to both consumer and producer can be achieved and must be worked for with renewed zeal.

Housing

"Postwar plans call for vast increase in housing construction and rural electrification. This will bring enormous demand for new household equipment. Houses lack breathing space, storage space and space in which to rear children. Building houses that hinder rather than foster good family life should be stopped if necessary by law. Advisory service on house arrangement, on housing costs, and on materials that require a minimum of time and effort for upkeep should be available to all builders. Mistakes that jeopardize good family life and housing plans that place too heavy a drain on incomes should not be tolerated. Business, producers, distributors, consumers and government can learn to work together more effectively. Let us not lose the advances that have been made in this direction during the war."

Introducing AVA Officers

(Continued from page 13)

degrees from Colorado State College and Stanford he engaged in journalism but left that field for business education in 1908. After helping to launch rehabilitation training he became successively principal of San Bernardino Senior High School, state supervisor of civilian rehabilitation and, upon its organization in 1929, business education bureau chief.

Frank C. Moore, vice president for industrial arts, practically grew up with this field of education. Holding degrees from the University of Michigan and Western Reserve University, he first taught industrial arts at Polo, Ill., in 1912. Going to Cleveland in 1914 he became successively teacher, supervisor and in 1936 director of industrial arts. He has served as president of the Western Arts Association and the Ohio State Industrial Arts Association.

Re-elected:

Charles W. Sylvester, treasurer: So dependable is his hand on the AVA pocketbook that the membership for the 18th time renewed its selection of Baltimore's director of vocational education as treasurer. Having taught in Virginia, Illinois and Indiana, Mr. Sylvester became chief of the Rehabilitation Division, Veterans Administration, during World War I. In 1922 he became vocational education director in Baltimore where he is also a leader in civic affairs.

Lindley H. Dennis, executive secretary: In charge at the national headquarters of the AVA since its establishment in 1934, Mr. Dennis was re-elected for a three year term. He brought to this office a broad experience in administration of vocational education having served as state director of vocational education in two states, Pennsylvania and Michigan.

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(5) Build morale—they give students confidence in their ability to do the job.

(6) Save time — training aids make it possible to meet standards in less time.

Encyclopaedia Britannica Films, Inc. announces the following new films of particular concern to vocational education:

Home Electrical Appliances, Principles of Home Canning, The Primary Cell, Elements of Electrical Circuits, Series and Parallel Circuits, Sending Radio Messages, Receiving Radio Messages, The Vacuum Tube, Housing in America, and *The Teeth.*

This organization which has taken over Erpi films also announces the availability of a home economics catalog listing Erpi classroom films in the fields of foods and homemaking. For a copy and for information on films, write Encyclopaedia Britannica Films, Inc., 1841 Broadway, New York 23, N. Y.

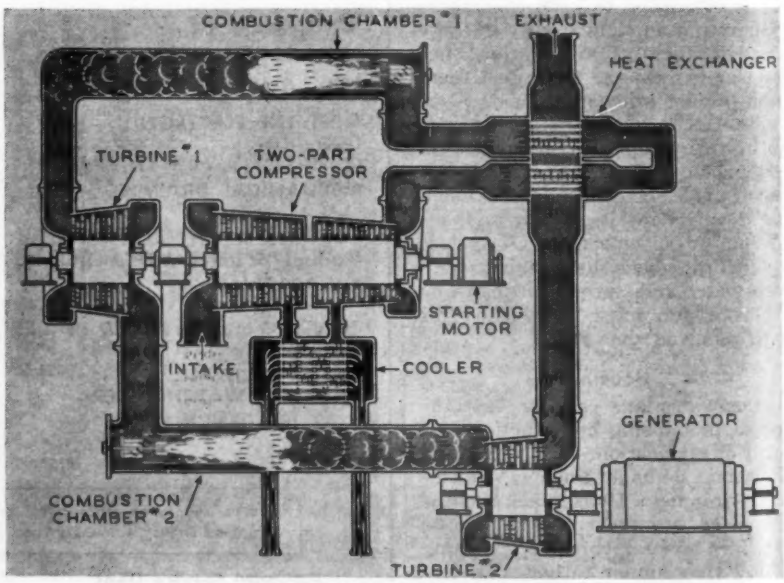
New York University Film Library catalogue, 1944: This is one of the larger guides to films available by rental. This catalogue with its supplements covers more than 100 pages. Free. Write to New York University Film Library, 71 Washington Square South, New York 12, N. Y.

Bray Studios, Inc., 729 Seventh Avenue, New York 19, N. Y., announces that the following 16 mm. sound films on aircraft vocational training may be rented: *Tube Bending By Hand, Blanking Sheet Metal With Hand Snips, Finish Forming By Hand, Making a Master Contour Template, Making a Master Developed Layout, Parts I and II, Sawing Template Metal, Filing Template Metal, Swaging Cable Terminals, Making a Five Tuck Splice, The Wrapped and Soldered Splice, Building a Box Beam Spar, Laying Out and Forming Plywood, Building a Wooden Rib, Wing Assembly—The Nose Section—The Inboard Panel—The Bow Tip.*

Catalogue of these films available on request.

Allis-Chalmers Mfg. Co., Milwaukee, Wis., announces a 28 minute 16 mm. sound film, *Tornado in a Box,* on the development and operation of the type of engine for which many are predicting wide use in the postwar years; namely, the gas turbine. This film, which employs many animated drawings, was made by the Jam Handy organization in Detroit, Mich. Two other films in this series are *Magic of Steam,* the story of the steam turbine; and *The Surface Condenser,* the story of the condenser. Schools and colleges may borrow or purchase prints of these films from Allis-Chalmers Mfg. Co.

Linde Air Products Company announces a series of slide films on welding and cutting. Each lesson unit includes slide film, three instructor's supplements and 25 student's lesson booklets. The series includes (1) "cutting," eight lessons in connecting, testing and lighting the oxy-acetylene cutting blowpipe, and making straight-line cuts; (2) "welding," ten lessons showing how to connect, test, and light the oxy-acetylene welding blowpipe, and giving basic welding instructions on light plate; (3) "safety," one lesson on care and handling of equipment and a second on fire precautions. Slide films and accompanying literature may be secured from Linde Air Products Company, 30 East 42nd St., N.Y.C., at a nominal price.



From *Tornado in a Box*, the Allis-Chalmers Mfg. Company's new film on the operation of the gas turbine. The film is produced by the Jam Handy Organization.

Castle Films announces release of a second U. S. Office of Education film on the slide rule. What the first film did for multiplication and division the second does for proportions, percentages, squares and square roots. No. 354 *Slide Rule*, 21 minutes, $27.71. Accompanying film strip, $1. Instructor's manual free.

Back To Normal, a 16 mm. sound film on the part played by modern science in making and fitting artificial limbs for disabled persons. Shows how disabled persons in Britain are taught to use new limbs. Available from the **British Information Services,** 30 Rockefeller Plaza, New York 20, N. Y.

RADIO

Job For Tomorrow. A new CBS 13 week series on American industries is now being offered Saturdays 3:45—4:00 P.M. EWT. Programs will deal with the steel, maritime, electrical, textile, shipbuilding and other industries.

BOOKS

The Liquidation of War Production. A. D. H. Kaplan. New York: McGraw-Hill Book Company, 1944. 133 pp. $1.50.

This is one of the authoritative guidebooks to the principles of reconversion. Written for research committee of the Committee for Economic Development. Important to administrators who are shaping plans to change from war to a peacetime basis of operation.

Know Your Merchandise. Isabel B. Wingate, Karen R. Gillespie and Betty G. Addison. New York: Harper and Brothers, 1944. 715 pp.

Text book on merchandise, to help retail salespeople know facts about goods they sell. Can also be used for classes in consumer buying. Covers textiles and non-textiles, such as leather, furs, jewels, cosmetics, foods, household utensils, glassware, furniture, plastics, etc.

Guidance and Personnel Services in Education. Anna Y. Reed. New York: Cornell University Press, 1944. 496 pp. $4.75.

Product of some 35 years' work and study, this book undertakes to present the whence, how and where of the guidance and personnel movement.

Ben Hunt's Whittling Book. W. Ben Hunt. Milwaukee, Wisconsin: The Bruce Publishing Company, 1944. 111 pp. $2.50.

Liberally illustrated book in which an expert whittler tells how to do it. Designs to speed the whittler, young or old, on his way.

A Shady Hobby. Jean Frances Bennett. Milwaukee, Wisconsin: The Bruce Publishing Company, 1944. 71 pp. $2.

Book of silhouettes and how to make them. For people who can draw a little and would like to enjoy their talent. Also for teachers who need a new approach in school art or who want to make supplementary materials and posters.

Blueprint Reading for the Building Trades. Joseph E. Kenney. New York: McGraw-Hill Book Company, 1944. 95 pp. $2.75.

Based on 18 years' experience in architectural drawing, this book is intended to assist in teaching blueprint reading and architectural drafting.

Metallography and Heat-Treatment of Steel. Ernest J. Teichert. New York: McGraw-Hill Book Company, 1938, 1944. 577 pp. $5.

Deals with the physical metallurgy of iron and steel alloys, metallography, and heat-treatment. One of three volumes on ferrous metallurgy in the Pennsylvania State College, Mineral Industrial Series.

Marine Pipefitting. Vern E. Hase and Ralph W. Allen. New York: McGraw-Hill Book Company, 1944. 325 pp. $3.

Companion book to *Marine Coppersmithing.* Many half tones and line cuts.

Ships Nomenclature. Portland, Oregon: Portland Public Schools, Division of Vocational Education, War Production Training, 1944. 271 pp.

The Division of Vocational Education, Portland Public Schools, hometown of famous Kaiser Ship Yards, prepared this abundantly illustrated manual for use with trainees.

Twentieth Century Engineering. C. H. S. Tupholme. New York: Philosophical Library, 1944. 201 pp. $3.

Written by an engineering authority, this book records spectacular engineering work of past few years. Covers mechanical power, engineering workshop processes, air-conditioning and refrigeration, chemical and metallurgical engineering, electrical engineering, traction, marine engineering, aircraft and physics.

Materials of Construction. Verne C. Fryklund and Charles H. Sechrest. Milwaukee, Wisconsin: The Bruce Publishing Company, 1943. 276 pp. $2.75.

Timely guide for students. Data was checked with manufacturers. Covers: Iron and steel, ceramics and plastics, finishing materials, forest products and other products such as abrasives, aluminum, as-

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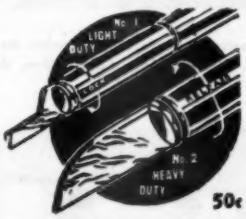

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From *Instructing the Blind Worker on the Job*, U.S.O.E. film No. 166. Castle Films distributor.

From *Instructing the Worker on the Job*, U. S. Office of Education film No. 155. Castle Films.

From *Supervising Workers on the Job*, U. S. Office of Education film No. 157. Castle Films.

From *Supervisor as a Leader, Part I*, U. S. Office of Education film No. 168. Castle Films.

bestos, copper, glues, inks, leather, petroleum and solder.

Arc and Acetylene Welding. Harry Kerwin. New York: McGraw-Hill Book Company, 1944. 240 pp. $2.

Designed for trade and vocational classes. A non-technical book on acetylene electric welding for the beginning student or for the instructor or engineer who understands the technical but not the practical side of welding. Many half tones and line cuts.

Meet the Electron. David Grimes. New York: Pitman Publishing Corporation, 1944. 120 pp. $2.

IN PAPER COVERS

The Negro in America. Maxwell S. Stewart. New York City: Public Affairs Committee, Inc., 1944. 32 pages. 10 cents.

Helpful condensation of *An American Dilemma*, by Gunnar Myrdal.

Principles of Nutrition and Nutritive Value of Food. U. S. Department of Agriculture, Miscellaneous Publication No. 546. Washington, D. C.: Superintendent of Documents, 1944. 40 pp. Free.

Gives the current last word of science about our developing knowledge of the real facts of nutrition and human life.

Commercial Supplementary Teaching Materials. Washington, D. C.: National Association of Secondary-School Principals, 1944. 24 pp. Free.

Vocational educators will find real value in this discussion of teaching aids, especially the suggested "Criteria and Suggestions for the Preparation, Selection, and Use of Commercial Materials."

Open Letter to My Newly Blinded Friend. Joseph F. Clunk. U. S. Office of Education. Washington, D. C.: Superintendent of Documents, 1944. 32 pp. 10 cents.

Joseph Clunk, that remarkable sightless man who heads up the Services for the Blind, wrote this statement out of his personal experience. It will give comfort, assurance, hope and practical advice to any person who has lost or is losing his eyesight.

Wartime Health and Education. Hearings Before a Subcommittee of the Committee on Education and Labor, Part I. Washington, D. C.: U. S. Senate, 1943. 600 pp.

A mine of material gathered by the Pepper subcommittee. Much of it concerns juvenile delinquency.

Buyer's Guide for Surplus Property. Compiled at the request of Surplus War Property Subcommittee. Washington, D. C.: Superintendent of Documents, 1944. 23 pp. 10 cents.

This became a best seller overnight through misadvertising. It was publicized as a Sears Roebuck catalog of government war surplus equipment. Actually it is a brief, helpful guide to the various Government agencies that have surplus or salvage material for disposal.

Agencies Concerned with the Quality of Rural Life in the South. Nashville, Tenn.: Southern Rural Life Council, 1944. 99 pp. 50 cents.

In-Service Education of Teachers and Rural Community Building. Meredith W. Darlington. Stillwater, Okla.: Oklahoma Agricultural and Mechanical College, 1944. 72 pp.

Record of an enterprise by which a teacher training institution maintains continuous contact and service to teachers at work.

The Library and Postwar Adult Adjustment Problem. Harry A. Jager and Franklin R. Zeran. Chicago: The American Library Association, reprinted from The Booklist, August, 1944, 5 pp. Free.

Prepared by U. S. Office of Education experts, leaflet includes list of publications which can be considered as a minimum information library.

Education for All American Youth. The Educational Policies Commission. Washington, D. C.: National Education Association, 1944. 421 pp.

At its inception the Educational Policies Commission developed important general plans for the guidance of American education. This volume suggests in some detail how those principles can be carried out in practice in rural communities, cities and state organizations.

Planning for American Youth. An Educational Program for Youth of Secondary-School Age. Washington, D. C.: National Association of Secondary School Principals, 1940, 1944. 25 cents per copy with discounts for orders in quantity. 64 pp.

A graphic, popularized interpretation of the recent Educational Policies Commission report "Education for All American Youth." Sections deal with programs ahead for vocational education.

The Job of the Industrial Counselor for Women. Frances Trigg. Washington, D. C.: U. S. Office of Education, 1944. 34 pp. Free.

Information which counselors need when they are obliged to undertake new responsibilities with little preliminary training. Many references to useful books and articles.

FFA NEWS

By Webster Tenney

NORTH DAKOTA: More than $3,500 in War Bonds and $30 in Stamps have been purchased by Mayville Chapter's 36 members.

TEXAS: FFA here has collected nearly 7 million pounds of scrap metal, more than a half million pounds of scrap paper, and more than a quarter million pounds of scrap rubber.

MISSOURI: The Pilot Grove FFA purchased 15 head of high grade Jerseys from the Springfield area in order to increase butterfat production and to provide better family food supply. Another shipment is to be purchased soon.

CALIFORNIA: Future Farmers at Arcata made an average of $285 per acre on 18 acres of carrots for dehydration at a Healdsburg plant, adviser L. H. Parsons reports. The FFA tract averaged 30 tons of carrots per acre at $20; gross yield, $600. Costs of land rent, tillage, seed, fertilizer, hand weeding, cultivating, digging and sacking and hauling came to $315.

SOUTH DAKOTA: Canton Chapter tested over 200 samples of seed for farmers this year, all testing being done free of charge. The chapter has $75 in War Bonds. Members, in spare time, built two wagon boxes this year. Whenever a boy finished his other work before the period was up, he worked on the boxes. The first, a straight box was sold at auction. The second, which is a tank box, is just being completed.

NEVADA: Again this year the Reno Sage Chapter organized over 80 high school students into a harvesting brigade to assist local producers of onions and potatoes. They placed their battery brooder in operation during October. Chicks were brooded for members and for the chapter. They plan to brood between 2,500 and 4,000 chicks this year.

MINNESOTA: Farm boys of the Mountain Lake FFA have been making many useful things for the farm. From the time school started last fall until now they have made farm equipment valued at $1,300. Eighteen chicken feeders which cost $70; chicken nests, $85; 6 hog crates, $56; 5 farm gates, $4 each. Six boys made wagon boxes which cost $250, and three hog cots at $125. They have made 13 seed treaters which cost $60; 2 feed bunks, $32.50; 12 hog feeders, $275; 7 hog brooders, $16; 3 hog troughs, $5.00; 4 alfalfa racks, $11.85; one chicken shelter $35; one brooder house, $140; kitchen cabinet, $30.

COLORADO: The Wray agriculture classes have made more than 800 individual butterfat tests under the Dairy Herd Improvement program during the past 18 months. The local FFA has sponsored the program in eastern Yuma county since the county association found it impossible to secure a full time cow tester. Every boy in the vocational agriculture classes has learned how to take samples and figure test records as well as how to make the butterfat test. Money received goes into the FFA treasury.

MICHIGAN: Barryton FFA finds that vocational agriculture yields financial and social experiences along with practical knowledge through the following activities: a cooperative Duroc Jersey Swine project consisting of eight sows and boars owned by the chapter and given out to members on contract; a broiler project of 550 birds; a loan fund which provides capital to individuals to be used in financing individual projects; a school garden to provide vegetables for the hot lunch program; a weekly moving picture to provide entertainment; and a green house which produces approximately 12,000 tomato plants each spring which are sold to farmers in the community.

LOUISIANA: The Hornbeck Chapter collected 35 tons of scrap iron and 500 pounds of rubber; purchased a $50 chapter War Bond. Members bought $425 in Bonds. They also assisted in construction of the food processing center; built 43 lamp brooders; vaccinated and wormed 500 hogs; purchased 625 baby chicks cooperatively; repaired farm machinery and equipment.

HAWAII: The Honokaa High School Chapter No. 8 owns a T-6 tractor with a bullgrader, plowing harrow, disk harrow, and a 3-disk 26 inch plow. This equipment was made available for community use to assist in land preparation and land clearing. Last year the boys prepared 247 acres in 1,061 hours. In addition, the wheel tractor and equipment, also chapter owned, prepared 45 acres in 359 hours.

Adults Want Education

Vocational education tops postwar demands for adult education according to a recent Gallup survey. How large the training job ahead will be appears in sampling figures showing that 34 percent of the nation's 25,000,000 adults will want training. In answer to "What courses would you like to take?" 13 percent (the largest) said "vocational." Mentioned prominently were machine operation, beauty operator, refrigeration, building trades, dressmaking, photography, typing, stenography. War training programs reflected Gallup's finding that 17 percent had taken some adult course in last five years. Lowest interest in adult education was reported among farmers. Perhaps Gallup did not use a proper farmer sampling; or the right question.

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NEWS in Part-Time Schools

by Tom Diamond

OUR returning servicemen will give impetus to part-time education. Employers and labor unions believe that the large numbers of apprentices whose training was interrupted will return to complete their apprenticeship.

The school must be ready to do its part in the training program. A responsible official in each school should be in constant contact with those agencies charged with reinducting young men into trades of their choice.

Other thousands of young men who entered the Army or Navy without any occupational experience or before they had selected their life's work, will also return. The school must provide these young veterans with opportunities to prepare themselves for the occupation of their choice. If they have no choice, the school should help them try out various types of work so that they may discover their real interests and aptitudes.

Such work need not be manipulative. Manipulative work will likely be done in places of employment. Coordination and related instruction will be the school's functions. This means more cooperative education.

Florida—D.C.T. Grows Apace: We are always pleased to receive the Florida D.C.T. journal, the mouthpiece of a vigorous organization. To Floridans, D.C.T. means just one thing—Diversified Cooperative Training.

The bulletin leaves no doubt as to the cooperative program success in Florida. State Supervisor of Industrial Education Dolley reports that D.C.T. work has grown from one school in 1933 to 30 programs in 25 centers in 1944.

Mr. Dolley further states that Florida educators, convinced of the soundness of cooperative vocational training, arranged for the appointment of E. C. Comstock, formerly of Alabama, as full-time D.C.T. coordinator. Under his direction, the program has become one of the outstanding educational efforts of the state.

Indiana—Bulletin News: The current Indiana Industrial Education Association bulletin yields a fund of information: Hoosiers believe strongly in the Good Neighbor policy. They are sending G. Gaumer, who taught motor mechanics in East Chicago, to Brazil to take a position with an airplane company. East Chicago anticipates a large postwar apprentice program.

Kansas—Fire School: Wichita public schools and the Educational Committee of the State Firemen's Association, in cooperation with the Kansas State Board for Vocational Education, conducted the annual Kansas Fire School; attendance, 371. W. A. Ross, consultant, public service occupations, U. S. Office of Education, conducted a teacher-training institute each afternoon. O. H. Beaty, assistant state supervisor of trade and industrial education, held an institute with fire chiefs. These men studied effective methods of establishing proper public relations for the fire department. The State Board paid salaries for two drillmasters and eight assistant drillmasters to train visiting firemen in handling ladders, hose and other evolutions.

Kentucky—Apprenticeship: Harold Wilson, state supervisor of industrial education, reports that apprentice training has been rather low due to the war. The State Apprenticeship Committee and its representative have been quite active in developing agreements in certain trades.

Massachusetts — Apprentice Activity: A recent checkup of apprenticeship programs shows related instruction being conducted in Chicopee, Lowell, Worcester, Newton, Pittsfield and Greenfield.

In Chicopee and Worcester, vocational classes meet in company plant quarters; Newton Trade School supervises the Watertown Arsenal classes.

The Pittsfield Vocational School receives apprentices from three companies. Since its beginning in the General Electric plant, the apprenticeship work at Pittsfield, supervised by John Moran, director, Pittsfield Vocational School, has won full approval of local industrial organizations. Recognizing Mr. Moran's contribution, the School Committee made him Vice-Principal of the Pittsfield High School. He also conducts an administration course offered by the State Teachers College at Fitchburg for tradesmen instructors working for vocational education degrees. Leadership of a conference of Williams College staff members, who give Navy V5 and V12 training, is his latest special assignment.

Minnesota—Institute Held: A three-day Part-Time Cooperative Coordinator's Institute was held at the Center for Continuation Study, University of Minnesota. This Institute experimented by calling in specialists from business, industry and labor to discuss and answer questions concerning the difficulties young workers experience in starting and holding a job.

Texas—Traffic Officers: In November the Agricultural and Mechanical Arts College offered a two-week course to train traffic officers. Sponsors were the State Board for Vocational Education and municipal associations. Subject matter included traffic organization and administration, traffic accident investigation, public relations, control of juvenile traffic violators, laws of arrest and evidence, traffic laws, etc.

Virginia—Firemen, Sealers, Police: Three hundred seventy-two Virginia high school juniors and seniors enrolled in part-time cooperative courses earned $5,458.21 while employed in various types of industries and businesses during the last two weeks of September. Many of these boys and girls would not have remained in school had it not been for the part-time employment.

Wyoming — D. O. Popular: Sam Hitchcock, state director of vocational education, reports successful programs have been organized in several diversified occupations. This type of program fits the needs of the larger cities. A number of communities plan to erect vocational shops as soon as materials become available.

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who's who—and where

Lt. Commander James R. Coxen, formerly with the Vocational Education Division, U. S. Office of Education, is now Navy liaison officer attached to the Veterans Administration.

Mrs. Frances W. Trigg has resigned from the Trade and Industrial Service, U. S. Office of Education, to become a coordinator for counselors for the Navy Department.

DeWitt Wing, formerly with the Department of Agriculture, has been appointed public relations counselor for the Future Farmers of America, Future Farmers Foundation and New Farmers of America. He will be closely associated at the U. S. Office of Education with A. Webster Tenney, National Executive Secretary of the FFA.

L. P. Arduser, formerly with the International Correspondence School and subsequently in war training work in Alabama, has been appointed senior training officer with the Veterans Administration. Headquarters are in Montgomery, Ala.

M. Norcross Stratton, Massachusetts Director of Vocational Education, announces the appointment of Daniel H. Shay as assistant director, Thomas L. Flynn as senior supervisor in education, and John F. Wostrell as supervisor of private trade schools to succeed Edward D. Callahan, who has been named senior supervisor in the rehabilitation division.

Lester M. Zook, for many years a teacher of agriculture in Washington County, Pa., writes in the *Pennsylvania Agricultural Education News* an interesting account of his experiences as an agricultural missionary in Oaxaca, Mexico.

Frances Balgley, acting director, Information Service, U. S. Office of Education, has resigned to join the Information staff of the Children's Bureau, Department of Labor.

Ralph W. Mitchell, agriculture instructor, Yuba City, Calif., former aide to American Legion Commander Atherton, has joined the training division of the Veterans Administration, Washington, D. C.

William F. Rasche, director, Milwaukee Vocational School, has been on a special assignment with the Civilian Personnel Branch, War Department, preparing a document on job skill training.

Officers of the **New Jersey Vocational Association** for 1945 are: President, Ronald Kent; vice presidents, E. V. Bearer, agriculture; Arthur F. Hopper, industrial arts; Fred Ermold, trades and industries; Harry Q. Packer, distributive education; Dr. C. Partch, life members; James Shields, secretary; H. Weible, treasurer.

James Mason, vocational director, Paterson, N. J., has been promoted to assistant superintendent.

W. R. Cate has been appointed Texas state director of industrial and distributive education and vocational training for war production workers, to succeed James R. D. Eddy, resigned, and also chairman of the vocational division.

Robert A. Manire, director of agricultural education, has been named executive officer of the Texas State Board for Vocational Education.

H. D. Bearden has been named trade and industrial supervisor for the North Texas District.

T. Preston Turner, former assistant supervisor of war production training in Virginia has become manager of *Virginia Journal of Education.*

Arthur E. Chapman, assistant supervisor of war production training in Virginia in charge of equipment and supplies, has resumed his position as architect in the Division of School Buildings. He is succeeded by G. Winston Gilbert, formerly of Roanoke.

J. A. Guitteau

THE Executive Committee of the American Vocational Association learned with deep regret of the accidental death by asphyxiation on Jan. 24 of their fellow member, J. A. Guitteau, vice president for agricultural education.

State Supervisor of Vocational Agriculture in Washington for the past 25 years, J. A. Guitteau, 55, died January 24 at Vancouver, Wash. His death was accidentally caused by gas escaping from a heater. Surviving him are his wife, Mrs. Anna M. Nystrom Guitteau, and two children, Marian E., and Robert George. He was serving his third year as the AVA vice president, representing vocational agriculture. He served the interests of education in a courageous and untiring manner, being sincerely desirous of promoting and supporting the strongest possible program of vocational education in all of its phases.

Mr. Guitteau was born at Ellensburg, Wash., Sept. 23, 1889. Following graduation from Washington State College in 1915, he operated a dairy farm for two years after which he taught vocational agriculture at Snohomish, Wash. In 1920 he became state supervisor of vocational agriculture. Few supervisors have served longer in that capacity. Through his efforts vocational agriculture has made marked progress in Washington. The many well equipped local departments of vocational agriculture which have been constructed as a result of his counsel and direction will continue to stand as a monument to the service he has rendered to rural America.

Serving for two years as regional representative on the national advisory council of FFA, Mr. Guitteau was instrumental in fostering those sound principles and policies which have been influential in making this the largest boys' organization in the world for youth studying agriculture.

Those fortunate enough to work with Judson A. Guitteau had great respect and admiration for his courage and ability. Through his counseling and energetic service in behalf of agriculture, many worthy things he worked for will continue to live on in the lives of those young men he has so ably assisted in becoming satisfactorily established on the land in their chosen vocation.

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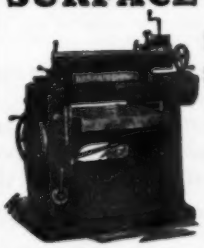

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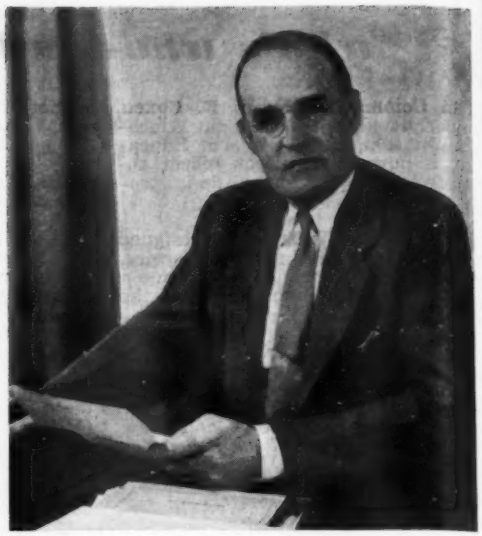

IT would not be a difficult matter to fill this page with comments on events incident to the opening of the 79th Congress in January. The Congress held its first session on Wednesday, January 3. By Tuesday, January 9, 1333 bills had already been introduced for consideration in the House of Representatives. A large number of these quite naturally dealt with the interests of returning veterans.

One hundred and fifty bills at that time had already been introduced in the Senate.

Some of the bills if enacted by Congress and signed by the President would amend the Veterans' Retraining Program under the direction of the Veterans' Administration. The following are some of the new legislative measures in which many of our readers will be interested:

H.R.100. Provides for community and county committees of farmers to administer federal programs involving farm contracts.

H.R.154. Provides veterans' retraining privileges regardless of age.

H.R.198 Provides promotion of a program in the interests of good citizenship.

H.R.275. Further provisions in the field of industrial rehabilitation.

H.R.290. Exempts certain religious and education organizations from provisions of withholding tax.

H.R.372. Additional provisions for vocational rehabilitation and employment for veterans.

H.R.548. Creates a division of aviation education in the U. S. Office of Education.

H.R.611. Provides grants to states in the field of civilian rehabilitation.

H.R.1296. Appropriations to states and territories to assist public schools in periods of emergency and to reduce the inequalities in education (NEA General Aid bill).

H.Res.63. Authorizing study of effect of war on higher institutions of learning.

S.181. Appropriations to states and territories to assist public schools in periods of emergency and to reduce the inequalities in education (NEA General Aid bill).

S.200. School Lunch bill.

President's Message

It would be wise for our AVA members to secure a copy of the message which President Roosevelt sent to Congress on January 9 relative to the 1946 budget. This message contains statements relative to support of public education and controls of public education. It also carries some definite statements relative to the reorganization of the basic structure of the U. S. Office of Education. We suggest that this particular part of the message be scrutinized with care by our AVA members. We shall have some definite suggestions relative to this a little later.

Surplus Property

The President has made his appointments to the surplus property board. The committee appointed by the Commissioner of Education, a committee of which your Executive Secretary is a member, has been at work preparing statements for submission to the surplus property board. Some quiet effective advance work has been done in this matter which perhaps may help facilitate the securing of some of the surplus Government-owned property by our vocational schools.

We suggest that you secure from the Government Printing Office, Washington 25, D. C. at a cost of ten cents a publication by the Government which may be of some assistance. The leaflet is entitled *Small Business Problems—Buyer's Guide for Surplus Property.* Among other things this lists the regional offices now being operated by the various Government agencies handling surplus material and indicates the types of surplus properties and materials.

Many of you will be interested in securing from the U. S. Treasury Procurement Division a weekly publication entitled *Surplus Reporter.*

It may be helpful for local directors of vocational schools to secure from the nearest regional office of the Procurement Division of the U. S. Treasury a list of the surplus property warehouses in that region. It might be possible to visit these warehouses for the purpose of ascertaining firsthand what surplus property is already on sale.

Respectfully submitted,

L. H. Dennis

Executive Secretary

War Industries Training Class, Weehawken, N. J. High School. Instructor: G. Harold Billingham.

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